

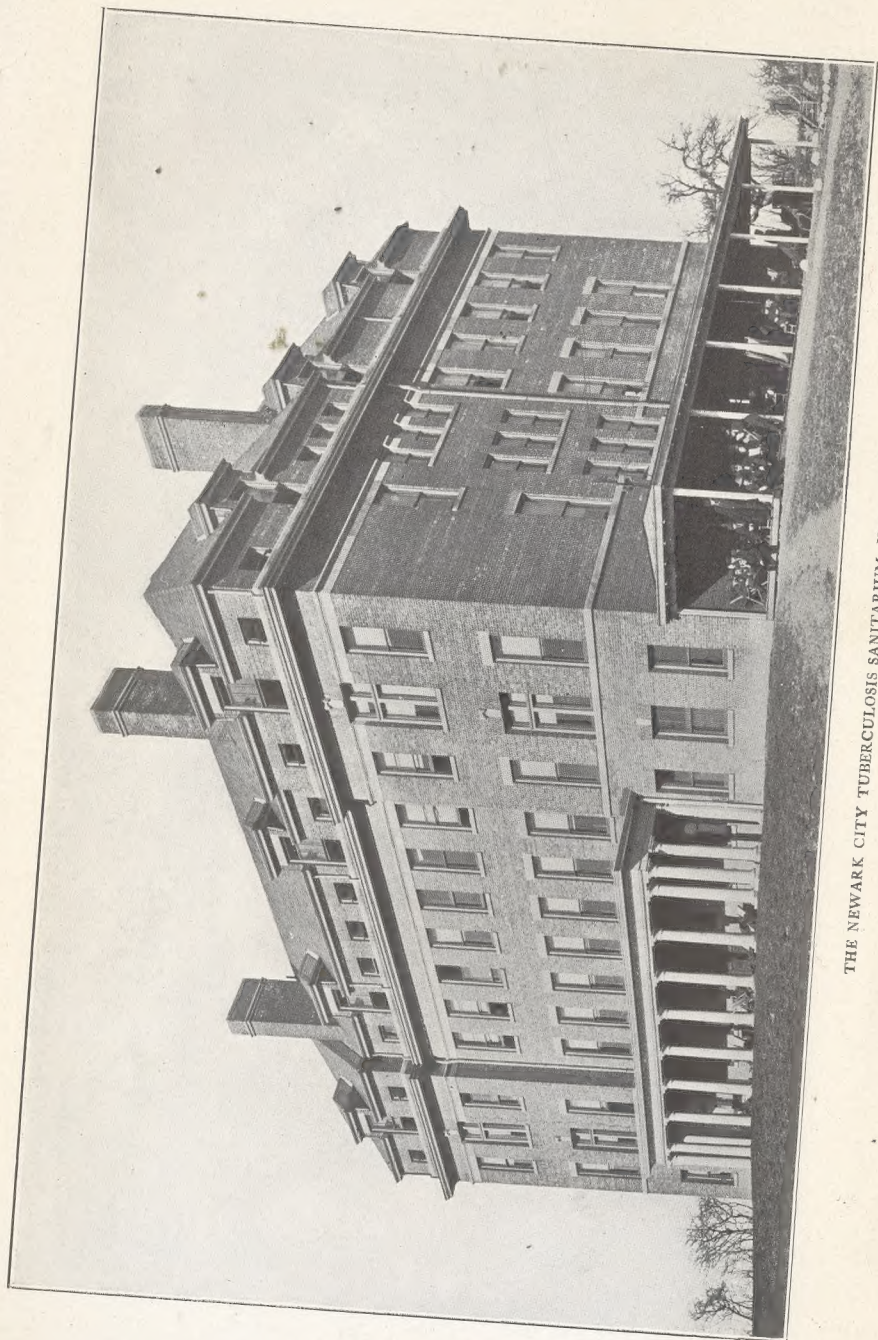
Annual Report

DEPARTMENT
OF PUBLIC HEALTH

CITY OF
NEWARK, N. J.



1908

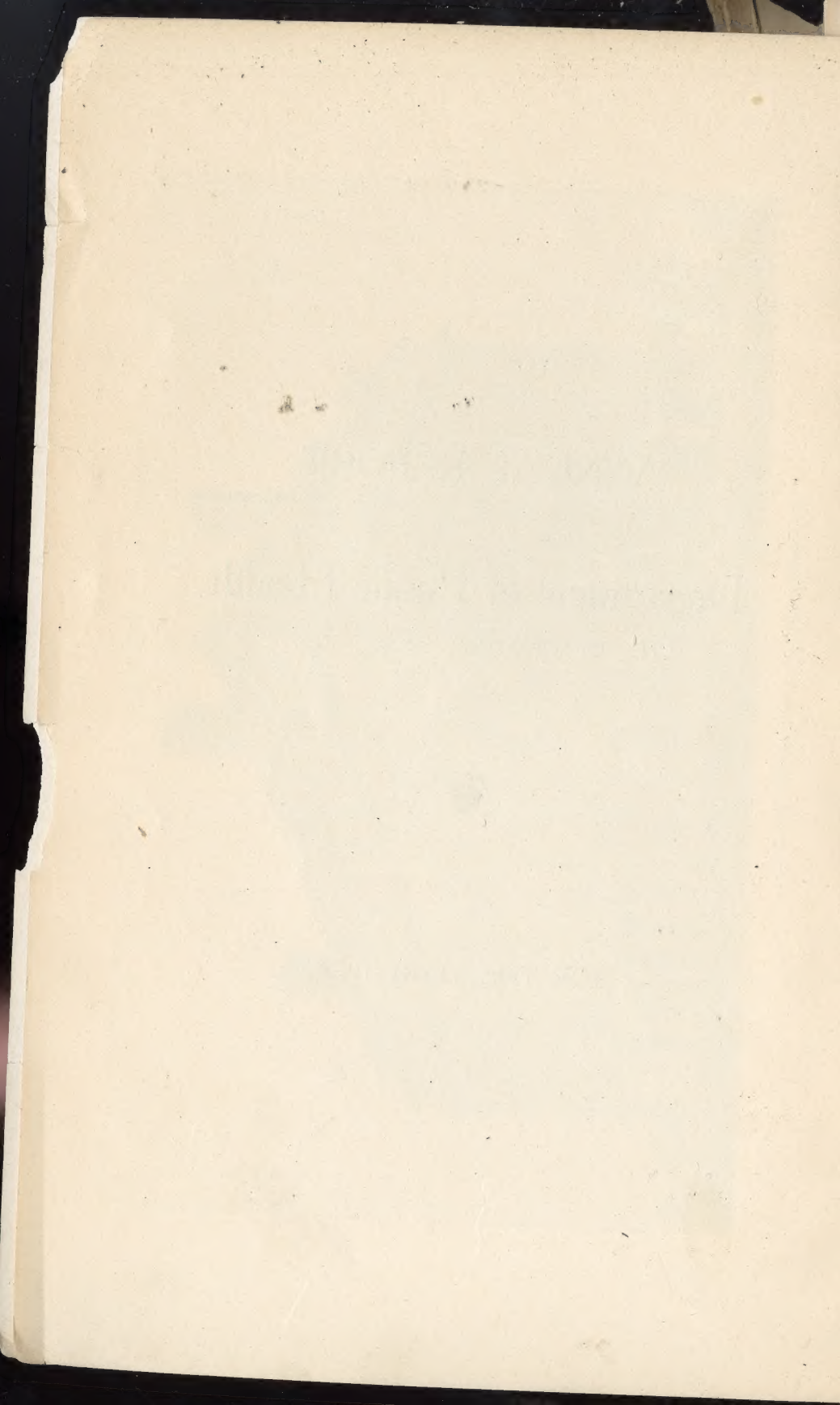


THE NEWARK CITY TUBERCULOSIS SANITARIUM, VERONA, N. J.

ANNUAL REPORT
OF THE
Department of Public Health
CITY OF NEWARK, NEW JERSEY



FOR THE YEAR 1908



MEMBERS OF THE BOARD OF HEALTH OF NEWARK, N. J.

FOR YEAR 1908

DR. H. C. H. HEROLD.....	1012 Broad Street
DR. W. S. DISBROW.....	151 Orchard Street
DR. J. T. WRIGHTSON.....	25 Walnut Street
MR. J. W. DOBBINS.....	63 North 3d Street
MR. FRANK M. SCHULZ.....	38 Franklin Street
DR. GEORGE L. WARREN.....	77 Houston Street
MR. TIMOTHY F. FOYLE.....	142 Hudson Street
DR. GEORGE R. KENT.....	27 Eighth Avenue
MR. I. ROLFE DENMAN.....	58 Johnson Avenue
MR. HENRY C. VANCE.....	758 DeGraw Avenue

HEALTH OFFICER,

MR. DAVID D. CHANDLER.....	74 North 7th Street
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BOARD OF HEALTH.

EMPLOYEES OF THE BOARD
OF HEALTH

OFFICE DIVISION.

JOHN J. GREEN.....	Clerk, Bureau Contagious Diseases 308 Riverside Avenue.
EUGENE W. BELLAR.....	Clerk, Sanitary Division. 45 Congress Street.
WILLIAM H. YOUNG.....	Clerk, Sanitary Division. 673 Summer Avenue.
ELBERT S. BALL.....	Clerk. 19 Nichols Street.
MISS ROSE KENNEDY.....	Stenographer to Health Officer. 26 Monmouth Street.
MISS JENNIE McNALLY.....	Telephone Operator. 37 Fillmore Street.
MISS CORA B. NATHAN.....	Clerk. 375 Walnut Street.
EDWARD E. WORL, M. D.....	Supt. Bureau Contagious Diseases. 271 High Street.
HERBERT B. BALDWIN.....	Chemist. 927 Broad Street.
WILLIAM WIENER.....	Meteorologist. 62½ Nelson Place.

BACTERIOLOGICAL DIVISION.

DR. R. N. CONNOLLY.....	Bacteriologist. City Hospital Building.
DR. THOMAS RIPLEY.....	Assistant Bacteriologist. 88 Baldwin Avenue.
DR. H. A. TARBELL.....	Second Assistant Bacteriologist. 28½ Thomas Street.
ERNEST SKILLMAN.....	Laboratory Assistant 206 South 10th Street.
ALBERT BREIDENBACH.....	Culture Collector. 70 Congress Street.

BOARD OF HEALTH.

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CITY DISPENSARY.

WILLIAM A. SMITH.....	<i>Apothecary.</i>
21 Court Street.	
HENRY OLTMAN.....	<i>Assistant Apothecary.</i>
348 Thirteenth Avenue.	
WILLIAM M. GOULD.....	<i>Dentist.</i>
85 Halsey Street.	
ELLEN GROWNEY.....	<i>Janitress.</i>
125 Commerce Street.	

DISTRICT PHYSICIANS.

HARRY C. POVEY.....	39 Mott Street
JAMES H. LOWREY.....	79 Congress Street
JAMES H. TRAINOR.....	131 Elm Street
EDWARD W. SPRAGUE.....	108 Washington Street
EDWARD F. FITZPATRICK.....	574 Warren Street
SAMUEL HIRSCHBERG.....	496 Bergen Street
LOUIS WEISS.....	227 South Orange Avenue
PLINY W. BARBER.....	169 Mt. Prospect Avenue
ALBERT S. HARDEN.....	540 Warren Street
S. B. W. LEYENBERGER*.....	98 Third Avenue
MARY E. BROADNAX.....	63 Elizabeth Avenue

SANITARY DIVISION—MEAT INSPECTORS.

WERNER RUNGE.....	130 Union Street
DANIEL KUHN.....	47 Providence Street

PLUMBING INSPECTORS.

JOHN B. SULLIVAN.....	204 Second Street
JOHN L. WHEALAN.....	120 Lincoln Avenue
EDWARD P. COULSTON.....	375 Walnut Street
CHARLES A. HALLGRING.....	374 Walnut Street
ANDREW J. MCGOOKIN.....	105 Arlington Street

FOOD AND DRUG INSPECTORS.

OTTO B. SCHALK.....	454 Fourth Avenue
SAMUEL G. SHARWELL.....	150 First Street

9th DISTRICT—DR. A. S. HARDEN—District Lines: Central Avenue, Warren Street, Hudson Street, Central Avenue, Norfolk Street, Clinton Avenue, Bloomfield Avenue and City Line.

10th DISTRICT—DR. S. B. W. LEYENBERGER—District Lines: Fulton Street, Central Avenue, High Street, Eighth Avenue, Clifton Avenue, Bloomfield Avenue, City Line and Passaic River.

11th DISTRICT—DR. MARY E. BROADNAX—District Lines: Avenue "D," Pacific Street, Tichenor Street, Lincoln Park, Spruce Street, Eighteenth Avenue, Livingston Street, Ridgewood Avenue and City Line.

ANTITOXIN AND CULTURE STATIONS

Established by the Board of Health for the Collection of Cultures and Distribution of Antitoxin

BOARD OF HEALTH OFFICE.		N. Y. & N. J.	Tel. No.
H. S. BLOOME.	880 Broad Street	4320,	"
O. VON GEHREN.	77 Ferry Street	1493	"
L. GRIENSENBECK.	200 Ferry Street	3187	"
C. HOLZHAUER.	28 Bowery Street	1590	"
E. F. FIELDING.	787 Broad Street	1312	"
GEO. LINNETT & BRO.	925 Broad Street	1675	"
E. A. SAYRE.	77 Lincoln Park	3034	"
W. R. SCUDDER.	482 Broad Street	3754	"
OSBORNE & KLEIN.	95 Belleville Avenue	1142	Branch Brook
I. HAGNEY.	289 Belleville Avenue	761	Branch Brook
F. L. FEINDT.	Central Avenue and Fifth Street	1651	Branch Brook
DR. BIANCHI	76 Belmont Avenue.	2494	Waverly
C. P. MOLL.	Seventh Avenue & Sheffield Street	1430	Branch Brook
E. M. AVERY.	166 Central Avenue	1319	"
L. L. STAEBLE.	291 Central Avenue	760	Branch Brook
D. S. BELDON.	169 South Orange Avenue.	1539	"
FEIND & HAIN.	315 South Orange Avenue.	1514	"
E. REICHEL.	Broome and Morton Streets	1438	Waverly
W. E. MOORE.	362 Springfield Avenue	2023	Waverly
F. F. CRISSY.	503 Clinton Avenue	2468	Waverly
J. B. FOSTER.	320 Bank Street	1391	"
H. WELER.	401 Seventh Avenue	1151	Branch Brook
C. W. MENK.	190 Washington Avenue	1091	Branch Brook
H. J. QUINN.	106 Market Street	291	"
ST. MICHAELS HOSPITAL.	182 Bloomfield Avenue	269	Branch Brook
DAVID STRAUSS.	High Street	84	"
PAUL KNECHT	Springfield Ave. & High St.	4633	"
OSCAR SCHOLZ.	Clay and Broad Streets.	771	Branch Brook
	133 Hamburg Place	4343	Newark

CLINICS AT CITY DISPENSARY MEDICAL

MALE AND FEMALE.

Every day excepting Sundays, at 9 A. M. District Physicians in attendance.

DISEASES OF SKIN.

Tuesdays and Fridays at 9:30 A. M.—DR. H. F. WALLHAUSER.

DISEASES OF WOMEN.

Tuesdays and Fridays at 3 P. M.—DR. WILLIAM GAUCH.

DISEASES OF CHILDREN.

Mondays, Wednesdays and Fridays at 10 A. M.—DR. FRANK W. PINNEO.

DISEASES OF MEN.

Mondays and Thursdays at 10 A. M.—DR. J. W. WILSON.

NERVOUS DISEASES.

Tuesdays and Thursdays at 2 P. M.—DR. CHRISTOPHER A. BELING.

SURGICAL.

Daily except Sundays, Saturday at 11 A. M. Other days at 12 M.—DR. MEYER JEDEL.

DENTIST.

Mondays, Wednesdays and Fridays at 1:30 P. M.—DR. W. M. GOULD.

THROAT AND NOSE.

Mondays and Thursdays at 3 P. M.—DR. HENRY A. TOWLE.

TUBERCULOSIS CLINIC.

Mondays and Wednesdays at 3 P. M.—DR. R. H. DIEFFENBACH.

ANNUAL REPORT
OF THE
HEALTH OFFICER
FOR THE YEAR 1908

ANNUAL REPORT OF THE HEALTH OFFICER

*To the Honorable the Board of Health of the City of
Newark, N. J.*

GENTLEMEN:—I have the honor to herewith present to you my report of the workings of the various divisions of the Department of Public Health, together with a report of the Bacteriologist, Superintendent of Medical Bureau of Contagious Diseases, Superintendent of Tuberculosis Sanitarium and Chemist of the Board for the year ending December 31, 1908.

SANITARY DIVISION.

The City is divided into seventeen districts, patrolled by seventeen inspectors appointed by the Board of Health. Each inspector is held responsible for the sanitary condition of his district.

CONSOLIDATED REPORT OF NUISANCES FOR THE YEAR 1908.

Inspections from complaint book.....	3,043
Inspections from complaint book, verified.....	2,543
Inspections from complaint book, no cause.....	500
No. of original inspections made.....	10,104

Total number of inspections made.....	13,147
Number of written notices served.....	1,736
Number of abatements from written notices.....	1,861
Number of verbal notices served.....	5,569
Number of abatements from verbal notices served.....	4,747
Total number of abatements.....	6,608
Number of hours in court.....	86
Well water analized and examined.....	14
Number of wells closed.....	5
Sewer connections ordered.....	372
Sewer drains inspected.....	1,173
Cesspools inspected.....	72
Alleys inspected.....	1,093
Alleys filthy.....	145
Streets need cleaning.....	147
Areas need cleaning.....	685
Cellars need cleaning.....	1,322
Ashes accumulation—yards and vacant lots.....	1,014
Garbage accumulation.....	658
Drainage Surface.....	158
Vacant lots in an unsanitary condition.....	170
Stagnant water on vacant lots.....	58
Defective water pipes.....	563
Houses filthy.....	117
Houses unfit for habitation.....	14
Slaughter houses inspected.....	31
Slaughter houses filthy.....	8
Houses unprovided with privy vaults or water closets.....	21
Houses with no water supply.....	27
Houses with roofs leaking.....	135
Storm gutters and storm leaders defective.....	440
Hydrants in yards defective.....	48
Privy houses filthy.....	110
Privy vaults full.....	235
Cesspools ordered built.....	21
Cesspools full.....	113
Privy houses dilapidated.....	34
Privy vaults and houses over same ordered reconstructed..	47
Privy vaults ordered cleaned and filled.....	341
Yards inspected.....	11,270
Yards in an unsanitary condition.....	1,235
Plumbing defective.....	658

BOARD OF HEALTH.

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Water closets defective.....	591
Pits under W. C's in yards defective and not water tight..	148
Stables inspected, including cow stables.....	2,004
Manure accumulation.....	1,241
Number of animal permits issued.....	173
Number of animals licensed.....	891
Number of house to house inspections.....	1,069
Total number of nuisances found.....	10,338
Total number of reinspections.....	8,238
Number of suit cases instituted for violation of the Sanitary Code	145
Number of cases in which penalties were imposed.....	14
Number of cases discontinued on payment of costs; nuisances abated	28
Number of cases discontinued, (change in ownership)....	4
Number of cases discontinued prior to summons being served—work having been done.....	99
Number of cases instituted by Milk and Food Inspector..	3
Number of cases in which penalties were imposed.....	3

PLUMBING DIVISION.

This division consists of five practical plumbers and the following is a summary of the work performed by them during the year 1908:

Plans approved.....	1,775
Plans rejected.....	149
Water tests made.....	1,553
Plumbing inspections made.....	2,898
Final plumbing inspections made.....	855
Smoke tests made.....	1,446
Peppermint tests made.....	2
Sewer permits granted.....	1,254
Cesspool permits granted.....	27
Privy vault permits granted.....	9
Manure pit permits granted.....	65
Relay sewer permits granted.....	13
Violations served.....	33
Violations rectified.....	12
Number of hours in court.....	31

MEAT AND LIVE STOCK DIVISION.

This division consists of two inspectors, one a veterinarian, whose duty it is to look after the slaughter houses and wholesale meat markets, and the other an experienced butcher, whose duty it is to visit all the public and private meat and vegetable markets. The following is a summary of the work performed during the year 1908:

Cattle inspected.....	20,694
Calves inspected.....	21,131
Sheep inspected.....	34,837
Hogs inspected.....	3,869
Total	80,527

CONDEMNED.

Calves	48
Carcasses of beef.....	10
Cows	1
22 bushels green peas	
28 crates of peaches	
1 wagon load string beans	

BUTCHER SHOPS VISITED.

Number of visits.....	8,408
Number of carcasses of beef inspected.....	24,182
Number of lambs and sheep inspected.....	90,536
Number of calves inspected.....	12,409
Number of hogs inspected.....	12,190
Total	139,517

CONDEMNED.

Calves	32
Calves' carcasses.....	1
Poultry, 3 boxes and 369 lbs. in bulk.	
Rabbits	6

Ducks	1 crate
Fish	50 lbs.
1 Lard Tub Pork Trimmings	
36 crates peaches.	
2 crates apples.	
3 baskets string beans	
1 bbl. potatoes.	
5 bbls. pears.	

FOOD AND DRUG INSPECTOR'S REPORT

The following inspections of food and milk were made during the year 1908:

Number of dairy wagons halted for milk inspection.....	4,208
Number of cans of milk inspected on same.....	6,512
Number of lactometer tests made.....	872
Number of stores visited.....	312
Number of cans of milk inspected in store.....	534
Number of lactometer tests made.....	136
Number of samples of milk found suspicious and sent to chemist for analysis.....	513
Number of samples sent to bacteriologist for examination..	473

In addition to the foregoing table, complaints were made of fruits, vegetables and cereals. Seven venders selling candy were ordered to cover their stands with glass covers; said orders have been complied with. Twenty packages of old cereals were destroyed.

Condemned, 7 bbls apples.
 Condemned, 1 bbl. sweet peas.
 Condemned, 13 crates peaches.
 Condemned, 21 bbls. pears.
 Condemned, 2 bbls. peppers.
 Condemned, 7 bags potatoes.
 Condemned, 1 box oranges.

CITY DISPENSARY AND OUT-DOOR POOR CONTINGENT

Persons treated at the following clinics :

Medical	14,058
Surgical	5,678
Diseases of the skin.....	2,608
Diseases of children.....	1,954
Diseases of women.....	506
Diseases of genito-urinary organs.....	2,044
Diseases of throat and nose.....	840
Nervous diseases.....	552
Tuberculosis	1,139
Number of vaccinations.....	1,540
Number of vaccine points delivered to medical inspectors of schools.....	1,470
Number of teeth extracted.....	1,489
Number of clinical prescriptions.....	37,831
Total number of patients treated.....	32,408

Number of patients sent to the following hospitals :

City Hospital.....	498
St. Michael's Hospital.....	102
St. Barnabas's Hospital.....	102
St. James' Hospital.....	97
German Hospital.....	91
Beth Israel Hospital.....	84
Hospital for Women and Children.....	36
Home for Crippled Children.....	22
Eye and Ear Infirmary.....	280
Babies' Hospital.....	239
Eighth Avenue Day Nursery.....	3
Newark Tuberculosis Sanitarium.....	86
 Total	 1,640

Number of district prescriptions dispensed as follows :

First	607
Second	719
Third	1,180
Fourth	501

BOARD OF HEALTH. 23

Fifth	420
Sixth	556
Seventh	495
Eighth	593
Ninth	274
Tenth	933
Eleventh	844

Total number of district prescriptions..... 7,212

RECAPITULATION.

Total number of patients treated.....	32,408
Total number of prescriptions.....	45,043
Total number of patients sent to hospitals.....	1,640

SUMMARY OF SERVICES RENDERED BY
DISTRICT PHYSICIANS.

	1st Dist.—Dr. H. C. Povey.	2nd Dist.—Dr. J. H. Lowrey.	3rd Dist.—Dr. J. H. Trainor.	4th Dist.—Dr. E. W. Sprague.	5th Dist.—Dr. E. F. Fitzpatrick.	6th Dist.—Dr. S. Hirschberg.	7th Dist.—Dr. L. Weiss.	8th Dist.—Dr. P. W. Barber.	9th Dist.—Dr. A. S. Harden.	10th Dist.—Dr. S. B. Leyenberger.	11th Dist.—Dr. Mary E. Broadnax.
Actual number of houses visited-----	193	319	609	433	289	287	372	341	66	472	202
Actual number of families visited-----	197	321	614	438	289	297	374	368	66	485	224
Number of sick prescribed for-----	204	332	630	458	289	318	399	418	66	519	256
Number of sick found treated by other physicians-----	13	2	7	6	41	24	2	---	3	9	7
Total number of visits made-----	802	794	991	801	848	745	517	833	288	1042	798
Number of patients sent to hospital-----	10	17	61	87	31	48	26	18	10	87	14
Number of deaths-----	7	3	12	5	3	8	6	5	3	2	10

RECAPITULATION.

	Actual number of houses visited.	Actual number of families visited.	Sick prescribed for.	Found treated by other physicians.	Total number of re-visits.	Number of patients sent to hospital.	Number of deaths.
1st District -----	193	197	204	13	802	10	7
2nd " -----	319	321	332	2	794	17	3
3rd " -----	609	614	630	7	991	61	12
4th " -----	433	438	458	6	801	87	5
5th " -----	289	289	289	41	848	31	3
6th " -----	387	297	318	24	745	48	8
7th " -----	372	374	399	2	517	26	6
8th " -----	341	368	418	-----	833	18	5
9th " -----	66	66	55	3	288	10	3
10th " -----	472	485	519	9	1,042	87	2
11th " -----	202	224	256	7	798	14	10
Total -----	3,583	3,673	3,889	114	8,459	409	64

RECEIPTS AND DISBURSEMENTS

OF THE

BOARD OF HEALTH FOR YEAR 1908

RECEIPTS.

Balance on hand, January 1, 1908.....	\$ 12,322.06
Appropriated by Common Council (Tax Ordinance)	75,000.00
Appropriated by Common Council (Supplement to Tax Ordinance).....	25,000.00
Special Appropriation by Common Council (Tuberculosis Sanitarium).....	14,188.00
Dead Animal Contract.....	1,050.00
Penalties Collected, Board of Health Cases.....	82.35
	<hr/> \$127,642.4

OFFICE RECEIPTS.

Filing Plans, Plumbing Division.....	\$ 3,550.00
Milk Licenses.....	3,034.00
Scavenger Permits.....	12.40
Scavenger Licenses.....	40.00
Animal Permits.....	97.60
Ice Licenses.....	522.00
Ice Plates.....	121.50
Chicken Slaughter House Permits.....	3.00
Board of Patients, Tuberculosis Sanitarium....	530.88
Fire Insurance.....	275.00
Ward-Gehin Co., (Cleaning and Drying Carpets)	16.32
Knights of Columbus (Furnishing Heat).....	185.00
Adams & Co. (Furnishing Heat).....	92.50
Penalties Collected (Milk Cases).....	45.00
	<hr/> 8,525.20

BACTERIOLOGICAL DIVISION.

Sale of Diphtheria Antitoxin.....	\$ 718.00
Sale of Sepsis and Tubercle Antitoxin.....	21.00
Bacteriological Examinations.....	222.50
	<hr/> 961.50
Total	<hr/> \$137,129.11

DISBURSEMENTS—SALARIES.
SANITARY DIVISION.

Health Officer.....	\$ 4,500.00	
Clerks (5).....	5,358.00	
Stenographer	1,000.00	
Superintendent Bureau Contagious Diseases...	2,500.00	
Chemist	1,800.00	
Chief, Disinfecting Corps.....	1,506.00	
Telephone Operator.....	420.00	
Meat Inspectors (2).....	2,975.00	
Drug and Food Inspectors (2).....	1,830.94	
Plumbing Inspectors (5).....	6,765.00	
Special Inspector to Health Officer.....	1,430.94	
Sanitary Inspectors (25).....	27,563.95	
Janitor	640.00	
Orderly (Isolation Hospital).....	720.00	
Meteorologist	72.00	
	<hr/>	\$59,081.83

CITY DISPENSARY.

City Apothecary.....	\$ 2,100.00	
Assistant City Apothecary.....	1,500.00	
Dentist	300.00	
Clerks (6 months).....	130.01	
Janitress	600.00	
	<hr/>	\$ 4,630.01

BACTERIOLOGICAL DIVISION.

Bacteriologist	\$ 4,000.00	
Assistant Bacteriologist.....	1,200.00	
Second Assistant Bacteriologist.....	1,000.00	
Laboratory Assistant.....	1,000.00	
Culture Collector.....	1,098.00	
	<hr/>	\$ 8,298.00

OUT DOOR POOR CONTINGENT.

District Physicians, (11).....	\$ 5,251.32	\$ 5,251.32
Total	<hr/>	\$ 77,261.16

BOARD OF HEALTH.
SANITARY DIVISION.

Office Rent.....\$ 2,833.32 \$ 2,833.32

LIGHT AND HEAT.

Electric Light.....\$ 236.34
Coal 277.50
\$ 513.84

TELEPHONES.

Supt. Bureau Contagious Diseases Residence...\$ 36.40
Health Officer's Residence..... 59.30
Office 731.77
\$ 827.47

REPAIRS.

Window Glass.....\$.90
Smoke Machine..... 13.75
Furniture 27.55
Cleaning Carpets..... 30.00
Renovating Side Walls Office..... 32.00
Painting 44.80
Carpenter Work..... 72.18
Mason Work..... 95.60
Plumbing 155.92
Electric Work..... 68.26
\$ 540.96

SUPPLIES.

Corks\$.25
Thermometer25
Files35
Tumblers73
Comb and Brush..... .74
Gas Tubing and Cap..... .79
Wire and Hooks..... 1.34
Sponges 1.35
Oil of Wintergreen..... 1.40
Gauze 1.50
Rug 2.50

BOARD OF HEALTH.

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Uniform Buttons.....	2.50
Dating Stamp.....	2.50
Copper Tacks.....	2.65
City Map (Mounted).....	3.25
Twine	3.13
Glass Bottles.....	3.95
Copying Bath.....	4.50
Transfer Cases.....	5.22
Copper Bottles.....	5.68
Shades	6.26
Steel Door Mat.....	6.50
Locks and Keys.....	7.35
Paper Bottles.....	8.50
Rubber Hose and Plug.....	10.50
Wrapping Paper.....	12.93
Ice Plates.....	32.00
Milk Plates.....	76.00
Printing and Stationery.....	768.21
	<hr/> \$ 972.83

JANITOR SUPPLIES.

Ice Tongs.....	\$.19
Towel Rack.....	.75
Bon Ami.....	.96
Ice Pike.....	1.00
Shovel	1.19
Axe	1.25
Brooms	1.32
Hoe and Rake.....	1.40
Toilet Paper.....	2.53
Chamoise	2.63
Cuspidors	2.94
Scythe	3.00
Floor Brush.....	3.49
Cheese Cloth.....	3.70
Sapolio	3.78
Toilet Cabinet.....	4.13
Gold Dust.....	4.32
Toweling	5.15
Mops	6.07
Creolin	8.00

Subpoenae Fees.....	1.00
Copy, N. Y. Med. Inspection of Schools.....	1.00
Telephone Calls.....	1.35
Rubber Stamps.....	1.40
Repairing Regenerators.....	1.50
Bottles	1.55
Transportation, New York and return.....	1.60
Graham's Atlas.....	1.75
Cab Hire.....	2.00
Annual Dues, N. J. Sant. Asso.....	2.00
Copy, "Medical Review of Reviews".....	2.00
Insp. Lyle (Incidentals, Animal Inspection)...	2.95
Matches	3.00
Treatise on Typhoid Fever (One Copy).....	3.00
Electric Supplies.....	3.77
Recovering Horse (S. P. Hospital).....	5.00
Annual Dues, Am. Pub. Health Asso.....	5.00
Treatise on Infectious Diseases (One Copy)...	7.00
Telegrams	6.02
Expressage	9.00
Sprinkling Street Front.....	13.50
Inspector Schalk (Expense Springville, Pa.)...	20.00
Labor and Material (S. P. Hospital).....	18.24
Incidental Acct. of Tuberculosis Sanitarium....	42.27
Food Supplies (S. P. Hospital).....	48.49
Transportation (Water Sheds).....	91.50
Trolley Tickets.....	150.00
Legislative Committee (Expense Trenton, N. J.)	220.50
Postage Stamps.....	328.40
	<hr/>
	\$ 1,004.99
Total	<hr/>
	\$ 9,455.38

CITY DISPENSARY.

LIGHT AND HEAT.

Gas	\$ 3.50
Electric Light.....	41.60
Coal	250.00
	<hr/>
	\$ 295.10

REMODELING DISPENSARY.

Window Glass.....	\$ 3.00
Electric Work.....	646.80
Painting	792.50
Carpenter Work.....	1,111.99
Plumbing Work.....	1,814.30
	<hr/> \$ 4,368.59

SUPPLIES.

Toweling	16.75
Sheets and Pillow Cases.....	51.73
Surgical Supplies, Gauze, Bandages, Etc.....	96.13
Printing and Stationery.....	258.49
Vaccine	317.00
Drugs	2,835.73
	<hr/> \$ 3,575.83

MISCELLANEOUS.

Ventilator	\$ 2.25
City Map (Mounted).....	3.25
Awnings	5.00
Removing and Replacing Awnings.....	5.50
Locks and Keys.....	5.65
City Directory.....	6.00
Painting Sign.....	9.00
Scales	16.10
Expectorating Signs.....	19.00
Washing Towels and Linen.....	37.01
Ice	59.37
Telephone	95.15
Salary (Hire of Substitute).....	100.00
	<hr/> \$ 363.28

Total	\$ 8,602.80
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DISINFECTING CORPS.

SUPPLIES.

Demijohn50
Bottles60

Gauze	1.50	
Iron Can.....	1.50	
Corks	1.60	
Kerosene Oil.....	2.85	
Rubber Hose.....	6.25	
Cotton Batting.....	56.00	
Printing and Stationery.....	63.00	
		<hr/> \$ 133.80

DISINFECTANTS.

Roll Sulphur.....	\$ 2.00	
Chloride of Lime.....	4.00	
Wood Alcohol.....	13.80	
Carbolic Acid.....	49.75	
Formaldehyde	696.75	
		<hr/> \$ 766.30

REPAIRS.

Regenerators	24.80	\$ 24.80
Total		<hr/> \$ 924.90

BACTERIOLOGICAL DIVISION.
SUPPLIES.

Berkshire sand.....	.30	
Soda Hydrate.....	.68	
Bromine83	
Discs	1.50	
Urinometers and Jars.....	2.25	
Non-Supporters	4.50	
Covers	5.05	
Alcohol	5.30	
Pipettes	5.60	
Bottles	5.85	
Micrometers	6.20	
Crockery	7.50	
Glass Slides.....	9.00	
Counting Cells.....	9.75	
Antitoxin Bottles	10.00	
Funnels	10.05	

BOARD OF HEALTH.

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Wittes Peptone.....	10.50	
Mailing Cases.....	19.97	
Screw Top Flasks.....	21.57	
Culture Tubes.....	30.00	
Printing and Stationery.....	37.62	
Rubber Stoppers.....	54.78	
Guinea Pigs.....	167.00	
	<hr/>	\$ 425.80

MISCELLANEOUS.

Repairing Sterelizer.....	2.72	
Plumbing Repairs.....	41.29	
Leather Case, " for Culture Collector".....	11.00	
Framing Culture Station Cards.....	20.00	
Insurance, "Antitoxin Houses" and Food.....	30.00	
	<hr/>	\$ 105.01

STABLES.

Clipping Horses.....	2.25	
Horse Blankets.....	16.00	
Horse Shoeing.....	156.00	
Board of Antitoxin Horses (8).....	2,400.00	
	<hr/>	\$ 2,574.25

INCIDENTALS—PETTY CASH ACCT.

Platinum Wire.....	.60	
Wood Alcohol.....	.70	
Rubber Tubing.....	.70	
Repairing Microtome Knife.....	.85	
Repairing Chairs.....	1.00	
Hardware	1.29	
Expressage	1.50	
Shellac	2.15	
Reed for Swabs.....	3.25	
Paraffin	3.40	
Record Files and Rubber Stamps.....	4.95	
Postage Stamps.....	148.00	
	<hr/>	\$ 168.39
Total		\$ 3,273.45

SMALLPOX HOSPITAL.

SALARIES.

Nurse	286.30	
Help	105.00	
		\$ 391.30

LIGHT AND HEAT.

Electric Light.....	57.63	
Gas	89.64	
Coal	145.50	
		\$ 292.77

REPAIRS.

Plumbing	14.75	
Roof	40.90	
Painting	28.06	
		\$ 83.71

SUPPLIES.

Tar Soap.....	.47	
Glasses60	
Liquors	2.00	
Hardware	3.25	
Gowns	3.54	
Toweling	3.66	
Mops and Handles.....	4.05	
Kitchen Utensils.....	4.43	
Kerosene Oil.....	4.10	
Mineral Waters.....	6.40	
Ice	6.30	
Sheeting	20.12	
Food Supplies.....	162.38	
		\$ 221.30

STABLES.

Condition Powder50	
Straps80	
Lantern and Reflector.....	1.34	

BOARD OF HEALTH.

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Blanket	3.50	
Rubber Boots.....	4.65	
Repairing Wagon.....	9.00	
Horseshoeing	38.50	
Hay and Feed, Oct., '07, to Dec., '08.....	233.59	
	<hr/>	\$ 291.88

MISCELLANEOUS.

Whisk Broome29	
Polish50	
Water Bottle.....	.75	
Shades	1.35	
Rope	1.18	
Disinfectants	3.79	
Newspapers	4.50	
Water Rent.....	18.75	
Telephone	94.10	
	<hr/>	125.21
Total		<hr/> \$1,406.17

TUBERCULOSIS HOSPITAL

DISBURSEMENTS.

MAINTENANCE—SALARIES.

Medical Superintendent.....	\$ 1,275.00	
Engineer	1,000.00	
Clerk (three months).....	75.00	
Nurses	626.02	
Maids	273.36	
Waitresses	394.13	
Laundresses	428.21	
Cooks	492.95	
Orderlies	170.83	
Helpers	493.27	
	<hr/>	\$ 5,228.77

LIGHT AND HEAT.

Coal	\$ 1,023.09	
Electric Light.....	756.90	
	<hr/>	\$ 1,779.99

FOOD SUPPLIES, ETC.

Butter	\$ 660.88
Eggs	2,761.52
Groceries	2,325.70
Meats and Vegetables.....	5,117.90
Incidentals	234.65
Milk	2,034.14
Drugs	122.30
Sputem Cups.....	235.22
Surgical Supplies.....	104.22
Express (Food Stuffs).....	175.60
Ice	185.93
	<hr/> \$ 13,958.06

TELEPHONE SERVICE.

Installing Private Line.....	\$ 11.00
Extension Station.....	5.50
Private Line Service.....	91.45
Telephone Service.....	202.53
Direct Wire Service.....	251.00
	<hr/> \$ 561.48

REAL ESTATE.

Excavating Trench.....	\$ 37.50
Tank Covers.....	25.00
Window Glass.....	4.65
Repairing Roof.....	75.00
Electrical Supplies.....	33.50
Cleaning Cesspools.....	130.00
Repairing Chimney.....	200.00
Steam Fittings, Hardware, Etc.....	291.40
Repairing and Grading Road.....	369.50
Building Sewers.....	195.00
Painting	1,035.87
Plumbing Work.....	1,755.70
Mason Work.....	1,523.95
Carpenter Work.....	2,008.19
Insurance Premium.....	562.50
	<hr/> \$ 8,247.76

EQUIPMENT—FURNITURE.

Clocks	\$ 8.20	
Shades	6.52	
Kitchen Closet.....	14.25	
Mirrors	21.60	
Brackets	15.60	
Stair Crash.....	16.80	
Refrigerators	24.19	
Dresser	19.00	
Couch	22.00	
Wardrobe	37.00	
Desks	63.00	
Linoleum	73.75	
Tables	138.70	
Chairs	387.00	
Rugs	381.67	
China Closet.....	27.00	
Ice Box.....	125.00	
	<hr/>	\$ 1,381.28

BEDS AND BEDDING.

Beds	\$ 209.25	
Springs	56.65	
Pillows	101.96	
Sheeting	235.98	
Mattresses	513.50	
Blankets	570.66	
	<hr/>	\$ 1,688.00

KITCHEN SUPPLIES.

Matches	\$ 3.60	
Kitchen Utensils.....	183.91	
Range	242.50	
	<hr/>	\$ 430.01

CROCKERY, GLASSWARE, ETC.

Crockery	\$ 351.99	
Glassware	56.44	
Table Linen.....	156.62	
Knives and Forks.....	112.76	
Spoons	31.23	
Toweling	97.95	
	<hr/>	\$806.99

LAUNDRY SUPPLIES.

Clothes Pins.....	\$ 1.64	
Clothes Line.....	1.53	
Wax	3.30	
Starch	15.30	
Blueing	12.70	
Clothes Baskets.....	6.38	
Soap	23.32	
Wash Boiler.....	4.50	
Irons	4.41	
Stoves	6.20	
Washing Soda.....	21.72	
Laundry Dryer.....	480.00	
		\$ 581.00

JANITOR SUPPLIES.

Scrub Brushes.....	\$ 4.00	
Dusters, Brooms, Mops, Etc.....	17.97	
Waste Baskets.....	4.48	
Ash Cans and Covers.....	7.88	
Galvanized Pails.....	1.62	
Garden Hose.....	3.75	
Rake	1.50	
Antiseptic Soap (Cleaning Floors).....	52.00	
		\$ 93.20

MISCELLANEOUS.

Candle Sticks.....	\$.50	
Chamois75	
Whisk Brooms.....	.97	
Dental Powder.....	1.17	
Rope	1.53	
Comb and Brush.....	1.94	
Canvas	2.26	
Needles and Thimbles.....	2.31	
Screen Doors.....	2.50	
Damask	4.27	
Cheese Cloth.....	4.01	
Thread	4.95	
Sawdust	5.50	
Seeds and Plants.....	6.50	

BOARD OF HEALTH.

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Water Cooler.....	6.98	
Screens	7.58	
Paper Napkins.....	8.50	
Advertising for Help.....	10.00	
Hardware (Nails, Tacks, Etc.).....	10.18	
Scales	15.60	
D. D. Chandler (Expense Philadelphia).....	19.50	
Toilet Paper.....	26.00	
Photographs of Hospital and Frames.....	25.25	
Ice Pans.....	58.00	
Printing and Stationery.....	63.15	
Cleaning Windows.....	160.00	
Auto Hire.....	205.00	
Carriage Hire.....	300.00	
I. E. Gluckman, Med. Supt. (Ex. Wash., D. C.)	72.00	
Awnings	54.00	
	<hr/>	\$ 1,080.90

REPAIRS.

Wagon	\$ 31.43	
Grate for Boiler.....	123.75	
Range	24.40	
	<hr/>	\$ 179.58

Total Expenditures.....\$ 36,017.02

RECAPITULATION.

RECEIPTS.

Balance on Hand, January 1, 1909.....	\$ 12,322.06	
Total Appropriation by Common Council.....	114,188.00	
Dead Animal Contract.....	1,050.00	
Penalties, Board of Health Cases.....	82.35	
Office Receipts (All Sources).....	9,486.70	
	<hr/>	\$137,129.11

DISBURSEMENTS.

SALARIES.

Sanitary Division.....	\$ 59,081.83	
City Dispensary.....	4,630.01	
Bacteriological Division.....	8,298.00	
District Physicians.....	5,251.32	
Tuberculosis Sanitarium.....	5,228.77	
Smallpox Hospital.....	391.30	
	<hr/>	\$ 82,881.23

SUPPLIES.

Sanitary Division.....	\$ 9,455.38
City Dispensary.....	8,602.80
Disinfecting Corps.....	924.90
Bacteriological Division.....	3,273.45
Tuberculosis Sanitarium.....	30,788.25
Smallpox Hospital.....	1,014.87
	<hr/>
	\$ 54,059.65
Total Disbursements.....	\$136,940.88

STATEMENT.

Assets	\$137,129.11
Liabilities	136,940.88
Cash on Hand.....	\$ 188.23

REPORT
OF THE
Division of Bacteriology



REPORT OF DIVISION OF BACTERIOLOGY

To Mr. David D. Chandler, Health Officer:

DEAR SIR:—Herewith is respectfully submitted the report of the Division of Bacteriology for the year ending December 31, 1908.

The work of this division has continued along practically the same lines as in previous years, and while there has been no startling innovation in public health bacteriological work during the year, yet the effect of municipal effort to use bacteriological knowledge in checking the ravages of bacterial diseases, appears to be bearing fruit.

This applies, particularly, to Diphtheria and Typhoid Fever, two diseases in the early recognition of which the microscope plays an important part.

It is, therefore, gratifying to report that the banner low mortality figure has been reached in Diphtheria in the past year.

In the following table the various kinds of examinations, together with the antitoxin production and distribution, are given for the different months of 1908:

		Cases.	Deaths.	Mortality.
1905.	Antitoxin used.....	1,421	82	5.7%
"	Antitoxin not used.....	193	28	14.5%
1906.	Antitoxin used.....	1,171	72	6.1%
"	Antitoxin not used.....	102	27	26.4%
1907.	Antitoxin used.....	913	64	7 %
"	Antitoxin not used.....	126	31	24.6%
1908.	Antitoxin used.....	726	49*	6.7%
"	Antitoxin not used.....	80	17	21.2%

*Three of these deaths occurred in the Essex County Isolation Hospital at Belleville, N. J., but are included in the above list because the cases were originally reported in Newark.

TUBERCULOSIS.

This disease is the subject of so much consideration and discussion at the present time that it will be difficult to find any phase of the subject which has not been investigated. The disease, however, continues to be the bane of civilization and no social condition of life is exempt from its ravages, and the channels through which it is contracted are in many cases as obscure to-day as when Koch discovered the Tubercle Bacillus twenty-seven years ago.

The year's work in this disease at the laboratory has been summarized in the following report by Dr. Thomas H. Ripley, the Assistant Bacteriologist of the Board:

To R. N. CONNOLLY, M. D., *Bacteriologist*:

DEAR SIR: The number of examinations made at the laboratory of sputa from suspected cases of tuberculosis during the year 1908, was 2,107, of which 727 contained tubercle bacilli.

The physicians for whom the examinations were made furnished data regarding the sex and age of 519 cases in which tubercle bacilli were found, 401 of these were male and 118 were female.

The following table shows the sex and time of life in which the disease occurs:

AGE	MALE	FEMALE
1 to 10 years	0	1
10 " 20 "	40	20
20 " 30 "	138	72
30 " 40 "	123	57
40 " 50 "	68	22
50 " 60 "	27	11
60 and over	5	5
	<hr/> 401	<hr/> 118

It will be seen that by far the greatest number of cases occurs between the ages of 20 and 40. The occupation, undoubtedly, has a great influence on the number of cases occurring. Out of 347 cases in which the physicians furnished positive data concerning the occupation, 265, or over 76%, were confined indoors, and only 82 were found in those whose calling kept them out of doors in the sunshine and fresh air.

Of the 265 cases put down as spending their time indoors, were 85 housewives.

The limited data furnished by the physicians shows that in the 519 cases examined, 103, or nearly 20%, had consumption in the immediate family—direct infection may have taken place in this way.

Very respectfully submitted,

DR. THOMAS H. RIPLEY.

The following table gives the number of specimens of sputa examined for tubercle bacilli during the last eleven years and shows the results obtained:

YEAR.	POSITIVE.	NEGATIVE.	TOTAL.
1898	312	378	690
1899	308	491	799
1900	380	623	1,003
1901	366	594	960
1902	796	746	1,542
1903	1,030	1,041	2,071
1904	804	959	1,763
1905	753	1,021	1,774
1906	740	1,385	2,125
1907	751	1,425	2,176
1908	727	1,380	2,107

CITY MILK SUPPLY.

Bacteriological examination of samples of the City Milk Supply was made during the year with results which show that the bacteriological condition of the milk can and should be improved.

The following resumé of the year's work in milk has been prepared by Dr. H. A. Tarbell, Assistant Bacteriologist:

To R. N. CONNOLLY, M. D., *Bacteriologist*:

DEAR SIR: The examination of milk for the purpose of determining the bacterial content which was established in 1906 has been followed out as routine work in the laboratory in the same manner as has been done in the past two years.

There have been 449 samples of milk examined, gathered from different sources, and the results do not show any decided improvement in the number of bacteria found per C. C. in comparison with last year's percentages.

We have divided the total number of samples examined into four classes, according to the bacterial count per C. C., and the results are shown in the following table:

NEWARK MILK SUPPLY—1908.

Samples under 100,000 bacteria per C. C.....	150 or 33.4%
Samples over 100,000 and under 500,000.....	136 or 30.2%
Samples over 500,000 and under 1,000,000.....	59 or 13.1%
Samples over 1,000,000.....	104 or 23.1%

A glance at the above table will show that over 76% of the samples examined contained under 1,000,000 bacteria per C. C.

Under proper care and up-to-date methods in the handling of dairy products, it would seem that it were possible to make this figure nearer 100,000, for it has been conclusively shown that the milk, when carefully handled and kept at low temperature, will rarely contain over that number of bacteria per C. C.

Yours respectfully,

H. A. TARBELL, M. D.

CITY WATER SUPPLY.

PEQUANNOCK.

Bacteriological examinations of bi-weekly samples of Pequannock water were made during 1908 with results, which are given in the tables that follow. These tables give the number of bacteria per cubic centimeter and also show the minimum amount of the sample which contain fermenting germs.

The presence of the latter germs is not conclusive evidence of contamination, but their absence is very good evidence of an unpolluted water supply.

In the tables it will be found that all of the samples from each of the sampling points are grouped together in order to facilitate comparisons with previous and subsequent samples from the same point.

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908.

Samples from Oak Ridge Stream, above Clinton Stream.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		<u>20</u>	<u>10</u>	<u>5</u>	<u>2</u>	<u>C. C.</u>	<u>C. C.</u>
Jan. 14.----	640	—	—	—	—	+	+
Jan. 24.----	1,390	—	—	—	—	—	—
Feb. 14.----	240	—	—	—	—	—	—
Feb. 23.----	1,340	—	—	—	+	+	+
Mch. 12.----	720	—	—	—	—	—	—
Mch. 27.----	780	—	—	—	—	+	+
Apr. 14.----	930	—	—	—	+	+	+
Apr. 29.----	960	—	—	—	+	+	+
May 12.----	1,140	+	+	+	+	+	+
May 26.----	980	+	+	+	+	+	+
June 10.----	3,870	+	+	+	+	+	+
June 26.----	3,700	+	+	+	+	+	+
July 15.----	5,040	+	+	+	+	+	+
July 28.----	11,700	+	+	+	+	+	+
Aug. 12.----	4,600	+	+	+	+	+	+
Aug. 25.----	2,180	+	+	+	+	+	+
Sept. 17.----	1,450	+	+	+	+	+	+
Sept. 29.----	2,300	+	+	+	+	+	+
Oct. 14.----	3,700	—	+	+	+	+	+
Oct. 28.----	970	+	+	+	+	+	+
Nov. 12.----	1,600	+	+	+	+	+	+
Nov. 25.----	800	—	+	+	+	+	+
Dec. 9.----	1,850	+	+	+	+	+	+
Dec. 30.----	810	—	—	+	+	+	+

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK
WATER DURING 1908—Continued.

Samples from Clinton Stream, above Oak Ridge Stream.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14-----	333	—	—	—	—	—	+
Jan. 24-----	300	—	—	—	—	—	+
Jan. 24-----	230	—	—	—	—	—	—
Feb. 14-----	430	—	—	—	—	+	+
Feb. 25-----	500	—	—	—	—	+	+
Mch. 12-----	130	—	—	—	+	+	+
Mch. 27-----	1,160	—	—	+	+	+	+
Apr. 14-----	530	—	+	+	+	+	+
Apr. 29-----	480	+	+	+	+	+	+
May 12-----	1,100	—	—	—	+	+	+
May 26-----	4,500	+	+	+	+	+	+
June 10-----	5,260	+	+	+	+	+	+
June 26-----	7,600	+	+	+	+	+	+
July 15-----	7,600	+	+	+	+	+	+
July 28-----	3,200	+	+	+	+	+	+
Aug. 12-----	2,460	+	+	+	+	+	+
Aug. 25-----	2,300	+	+	+	+	+	+
Sept. 17-----	1,600	+	+	+	+	+	+
Sept. 29-----	800	—	—	—	+	+	+
Oct. 14-----	420	+	+	+	+	+	+
Oct. 28-----	510	—	—	+	+	+	+
Nov. 12-----	250	—	+	+	+	+	+
Nov. 25-----	760	—	+	+	+	+	+
Dec. 9-----	370	—	—	—	+	+	+
Dec. 30-----							

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908—Continued.

Samples from Kanouse Creek, above Pequannock River.

1908.	Bact. Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C.C.	C.C.
Jan. 14	1,380	—	—	—	+	+	+
Jan. 24	440	—	—	—	—	+	+
Feb. 14	1,300	+	+	+	+	+	+
Feb. 25	1,500	—	—	—	—	+	+
Mch. 12	2,560	—	—	—	—	+	+
Mch. 27	190	—	—	+	+	+	+
Apr. 14	1,730	—	+	+	+	+	+
Apr. 29	1,500	+	+	+	+	+	+
May 12	5,040	—	+	+	+	+	+
May 26	2,300	—	—	+	+	+	+
June 10	6,500	+	+	+	+	+	+
June 26	7,560	+	+	+	+	+	+
July 15	9,200	+	+	+	+	+	+
July 28	6,900	+	+	+	+	+	+
Aug. 12	7,560	+	+	+	+	+	+
Aug. 25	32,100	+	+	+	+	+	+
Sept. 17	4,500	—	+	+	+	+	+
Sept. 29	5,600	+	+	+	+	+	+
Oct. 14	1,040	—	—	—	—	+	+
Oct. 28	3,160	+	+	+	+	+	+
Nov. 12	1,200	+	+	+	+	+	+
Nov. 25	920	—	+	+	+	+	+
Dec. 9	3,700	+	+	+	+	+	+
Dec. 30	1,240	—	—	—	+	+	+
Oct. 14 Spring, head of creek	2,200	—	+	+	+	+	+
Oct. 14 At Van Dean's Farm	1,400	—	+	—	+	+	+
Oct. 14 At Conklin Farm	1,000	—	—	—	+	+	+
Oct. 14 At Brown's Farm	1,300	—	—	—	+	+	+
Oct. 14 At Pequannock River	1,180	—	—	+	+	+	+

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908—Continued.

Samples from Echo Lake Stream, above Pequannock River.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14----	630	—	—	—	—	+	+
Jan. 24----	250	—	—	—	+	+	+
Feb. 14----	450	—	—	—	—	—	—
Feb. 25----	620	—	—	—	—	—	+
Mch. 12----	2,730	—	—	—	+	+	+
Mch. 27----	330	—	—	+	+	+	+
Apr. 14----	1,270	—	—	+	+	+	+
Apr. 29----	860	—	—	—	—	+	+
May 12----	570	+	+	+	+	+	+
May 26----	1,230	+	+	+	+	+	+
June 10----	7,500	+	+	+	+	+	+
June 26----	8,820	+	+	+	+	+	+
July 15----	2,700	+	+	+	+	+	+
July 28----	12,600	+	+	+	+	+	+
Aug. 12----	3,150	+	+	+	+	+	+
Aug. 25----	3,280	+	+	+	+	+	+
Sept. 17----	1,190	+	+	+	+	+	+
Sept. 29----	4,200	+	+	+	+	+	+
Oct. 14----	260	—	—	—	+	+	+
Oct. 28----	1,890	+	+	+	+	+	+
Nov. 12----	330	+	+	+	+	+	+
Nov. 25----	570	+	+	+	+	+	+
Dec. 9----	1,250	+	+	+	+	+	+
Dec. 30----	110	—	—	—	—	+	+

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908—Continued.

Samples from Macopin Intake at Gatehouse.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14----	890	—	—	—	+	+	+
Jan. 24----	930	—	—	—	—	+	+
Feb. 14----	230	—	—	—	—	—	+
Feb. 25----	750	—	—	—	—	—	+
Mch. 12----	1,890	—	—	—	+	+	+
Mch. 27----	310	—	—	—	+	+	+
Apr. 14----	960	—	—	—	+	+	+
Apr. 29----	970	—	—	—	+	+	+
May 12----	1,750	+	+	+	+	+	+
May 26----	790	—	—	+	+	+	+
June 10----	1,680	+	+	+	+	+	+
June 26----	470	—	—	—	—	+	+
July 15----	1,940	+	+	+	+	+	+
July 28----	1,360	+	+	+	+	+	+
Aug. 12----	5,040	+	+	+	+	+	+
Aug. 25----	4,160	+	+	+	+	+	+
Sept. 17----	1,600	—	+	+	+	+	+
Sept. 29----	1,560	+	+	+	+	+	+
Oct. 14----	1,300	—	—	+	+	+	+
Oct. 28----	1,170	+	+	+	+	+	+
Nov. 12----	570	+	+	+	+	+	+
Nov. 25----	340	—	—	—	+	+	+
Dec. 9----	1,200	—	—	+	+	+	+
Dec. 30----	560	—	—	—	—	—	—

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908—Continued.

Samples from Cedar Grove Reservoir at Inlet Gatehouse.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14----	520	—	—	—	—	—	+
Jan. 24----	850	—	—	—	—	—	+
Feb. 14----	270	—	—	—	—	—	—
Feb. 25----	890	—	—	—	—	—	+
Mch. 12----	1,370	—	—	—	—	+	+
Mch. 27----	210	—	—	—	—	—	+
Apr. 14----	720	—	—	—	—	+	+
Apr. 29----	160	—	—	—	—	+	+
May 12----	1,050	+	+	+	+	+	+
June 26----	440	—	—	—	+	+	+
June 10----	350	+	+	+	+	+	+
June 26----	440	—	—	—	+	+	+
July 15----	670	+	+	+	+	+	+
July 28----	970	—	—	+	+	+	+
Aug. 12----	310	+	+	+	+	+	+
Aug. 25----	150	—	—	—	+	+	+
Sept. 17----	460	—	—	—	+	+	+
Sept. 29----	290	—	+	+	+	+	+
Oct. 21----	570	+	+	+	+	+	+
Oct. 28----	870	—	—	—	+	+	+
Nov. 12----	260	—	—	+	+	+	+
Nov. 25----	90	—	—	—	—	—	—
Dec. 9----	1,020	+	+	+	+	+	+

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908—Continued.

Samples from Cedar Grove Reservoir at Outlet Gatehouse.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14-----	140	—	—	—	—	—	+
Jan. 24-----	540	—	—	—	—	—	+
Feb. 14-----	150	—	—	—	—	+	—
Feb. 25-----	630	—	—	—	—	—	—
Mch. 12-----	290	—	—	—	—	—	+
Mch. 27-----	120	—	—	—	—	—	+
Apr. 14-----	370	—	—	—	—	+	+
Apr. 29-----	120	—	—	—	—	—	—
May 12-----	230	—	—	—	—	—	—
May 26-----	400	—	—	—	—	+	+
June 10-----	60	—	—	—	+	+	+
June 26-----	70	—	—	—	+	+	+
July 15-----	70	—	—	—	+	+	+
July 28-----	560	—	—	+	+	+	+
Aug. 12-----	1,970	+	+	+	+	+	+
Aug. 25-----	840	—	—	—	+	+	+
Sept. 17-----	890	—	—	+	+	+	+
Sept. 29-----	860	—	—	+	+	+	+
Oct. 21-----	210	—	—	—	—	+	+
Oct. 28-----	150	—	—	—	+	+	+
Nov. 12-----	190	—	—	+	+	+	+
Nov. 25-----	110	—	—	—	—	—	—
Dec. 9-----	750	—	—	—	+	+	+
Dec. 30-----	750	—	—	—	—	+	+

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK
WATER DURING 1908—Continued.

Samples from Belleville Reservoir at Inlet Gatehouse.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14----	780	—	—	—	—	+	+
Jan. 24----	560	—	—	—	—	—	—
Feb. 14----	70	—	—	—	—	—	—
Feb. 25----	860	—	—	—	—	—	+
Mch. 12----	210	—	—	—	—	—	+
Mch. 27----	80	—	—	—	—	+	+
Apr. 14----	210	—	—	—	—	—	+
Apr. 29----	110	—	—	—	—	—	—
May 12----	50	—	—	—	—	—	—
May 26----	60	—	—	—	—	—	—
June 10----	70	—	—	—	+	+	+
June 26----	110	—	—	—	+	+	+
July 15----	190	—	—	+	+	+	+
July 28----	60	—	—	+	+	+	+
Aug. 12----	300	+	+	+	+	+	+
Aug. 25----	2,580	—	—	—	+	+	+
Sept. 17----	1,730	—	—	+	+	+	+
Sept. 29----	970	—	—	—	+	+	+
Oct. 21----	270	—	—	—	—	+	+
Oct. 28----	210	—	—	—	+	+	+
Nov. 12----	240	—	—	—	+	+	+
Nov. 25----	90	—	—	—	—	—	—
Dec. 9----	370	—	—	—	—	+	+
Dec. 30----	690	—	—	—	—	+	+

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908—Continued.

Samples from Belleville Reservoir at Outlet Gatehouse.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14-----	310	—	—	—	—	—	—
Jan. 24-----	720	—	—	—	—	—	+
Feb. 14-----	90	—	—	—	—	—	—
Feb. 25-----	420	—	—	—	—	—	+
Mch. 12-----	16	—	—	—	—	+	+
Mch. 27-----	120	—	—	—	—	—	+
Apr. 14-----	200	—	—	—	—	—	—
Apr. 29-----	90	—	—	—	—	—	—
May 12-----	50	—	—	—	—	—	—
May 26-----	30	—	—	—	—	—	—
June 10-----	130	—	—	—	+	+	+
June 26-----	164	—	—	—	—	+	+
July 15-----	190	—	—	+	+	+	+
July 28-----	210	+	+	+	+	+	+
Aug. 12-----	620	—	—	+	+	+	+
Aug. 25-----	2,400	+	+	+	+	+	+
Sept. 17-----	1,800	—	—	+	+	+	+
Sept. 29-----	860	—	—	—	+	+	+
Oct. 21-----	330	—	—	+	+	+	+
Oct. 28-----	80	—	—	—	+	+	+
Nov. 12-----	160	—	—	—	—	—	—
Nov. 25-----	150	—	—	—	—	—	+
Dec. 9-----	260	—	—	—	—	—	+
Dec. 30-----	600	—	—	+	+	+	+

BAACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908—Continued.

Samples from Board of Health Office, 880 Broad St.

1908.	Bacteria Per. C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14-----	95	—	—	—	—	—	—
Jan. 24-----	180	—	—	—	—	—	—
Feb. 14-----	90	—	—	—	—	—	—
Feb. 25-----	120	—	—	—	—	—	—
Mch. 12-----	66	—	—	—	—	—	—
Mch. 27-----	55	—	—	—	—	—	—
Apr. 14-----	70	—	—	—	—	—	—
Apr. 29-----	20	—	—	—	—	—	—
May 12-----	34	—	—	—	—	—	—
May 26-----	32	—	—	—	—	—	—
June 10-----	20	—	—	—	—	+	+
June 26-----	26	—	—	—	—	—	—
July 15-----	20	—	—	—	—	+	+
July 28-----	30	—	—	—	—	—	—
Aug. 12-----	20	—	—	+	+	+	+
Aug. 25-----	24	—	—	—	—	+	+
Sept. 17-----	40	—	—	—	—	—	+
Sept. 29-----	10	—	—	—	—	—	—
Oct. 21-----	30	—	—	—	—	—	—
Oct. 28-----	26	—	—	—	—	—	+
Nov. 12-----	90	—	—	—	—	+	+
Nov. 25-----	90	—	—	—	—	—	—
Dec. 9-----	150	—	—	—	—	—	+
Dec. 30-----	150	—	—	—	—	—	+

BACTERIOLOGICAL EXAMINATIONS OF PEQUANNOCK WATER DURING 1908—Continued.

Samples from Laboratory Faucet, City Hospital.

1908.	Bacteria Per C. C.	Amount of Sample Causing Fermentation in 5 C. C. Glucose Bouillon.					
		1	1	1	1	1	5
		20	10	5	2	C. C.	C. C.
Jan. 14----	145	—	—	—	—	—	—
Jan. 24----	220	—	—	—	—	—	+
Feb. 14----	90	—	—	—	—	—	—
Feb. 25----	160	—	—	+	—	—	—
Mch. 12----	118	—	—	—	—	—	—
Mch. 27----	90	—	—	—	—	—	+
Apr. 14----	20	—	—	—	—	—	—
Apr. 29----	80	—	—	—	—	—	—
May 12----	66	—	—	—	—	—	—
May 26----	70	—	—	—	—	+	+
June 10----	30	—	—	—	—	+	+
June 26----	62	—	—	—	—	+	+
July 11----	107	—	—	—	—	+	+
July 15----	80	—	—	—	+	+	+
July 28----	50	—	—	—	+	+	+
Aug. 12----	48	—	—	—	+	+	+
Aug. 25----	20	—	—	—	+	+	+
Sept. 17----	40	—	—	—	—	+	+
Sept. 29----	20	—	—	—	—	+	+
Oct. 14----	60	—	—	—	+	+	+
Oct. 21----	40	—	—	—	—	—	+
Oct. 28----	40	—	—	—	—	+	+
Nov. 12----	70	—	—	—	—	—	—
Nov. 25----	50	—	—	—	—	—	—
Dec. 9----	190	—	—	—	—	+	+
Dec. 30----	180	—	—	—	—	—	+

AVERAGE NUMBER OF BACTERIA PER CUBIC CENTI-
METER IN THE PEQUANNOCK WATER AT THE
SAMPLING POINTS FOR THE YEAR 1908.

Origin of Samples.	No. of Samples Examined.	Average Bacteria Per C. C.
Oak Ridge Stream, above Clinton Stream---	24	2,237
Clinton Stream, above Oak Ridge Stream---	24	1,859
Kanouse Creek, above Pequannock River---	24	4,542
Echo Lake Str'm, above Pequannock River---	24	2,366
Macopin Intake at Gatehouse-----	24	1,350
Cedar Grove Reservoir at Inlet-----	23	561
Cedar Grove Reservoir at Outlet-----	24	436
Belleville Reservoir at Inlet-----	24	452
Belleville Reservoir at Outlet-----	24	416
Board of Health Office, 880 Broad St.-----	24	62
Laboratory Faucet, City Hospital-----	26	82

The above table illustrates in a very striking manner the average reduction in the number of bacteria, which takes place in the water between the watershed and the City faucets.

Very respectfully,

RICHARD N. CONNOLLY, M. D.,

Bacteriologist.

ANNUAL REPORT

OF THE

**Superintendent Bureau of Contagious
Diseases**

NEWARK BOARD OF HEALTH

FOR THE YEAR 1908

EDWARD E. WORL, M. D.

ANNUAL REPORT
OF THE
Superintendent Bureau of Contagious
Diseases
FOR THE YEAR 1908.

To D. D. Chandler, Health Officer:

DEAR SIR:—I have the honor to present the following
report of Bureau Contagious Diseases for the year 1908:

OUR POPULATION.

The estimated population for the year 1908 was 305,000.
The population is distributed as follows:

WARD.	POPULATION.
1	13,429
2	18,597
3	27,561
4	12,337
5	12,931
6	23,302
7	28,599
8	15,982
9	12,781
10	25,042
11	17,329
12	19,114
13	16,275
14	27,274
15	17,853
16	16,594
Total	305,000

YEAR.	CASES.	DEATHS.
1898	179	41
1899	515	66
1900	320	50
1901	316	57
1902	259	47
1903	306	63
1904	210	40
1905	228	40
1906	336	50
1907	330	69
1908	181	35

The average mortality for fifteen years is 19.9%. The deaths from Typhoid Fever are 11.47 to the 100,000 of population.

REPORTED TYPHOID FEVER CASES AND DEATHS, 1908:

MONTH.	CASES.	DEATHS.
January	25	4
February	9	2
March	5	4
April	15	3
May	11	2
June	13	2
July	15	2
August	25	2
September	20	3
October	18	5
November	17	6
December	8	0
	<hr/> 181	<hr/> 35

SMALLPOX.

This disease shows a great falling off, there being two (2) cases reported for March, 1908, against 20 cases in 1907. The reported number of suspect cases shows that too large a percentage of our people are yet unprotected by vaccination. Smallpox is no longer a disease of children

but chiefly in adults who are unprotected or have allowed their vaccinations to lapse.

The following table gives our record in this disease:

YEAR.	CASES.	DEATHS
1894	131	18
1895	13	2
1896	0	0
1897	0	0
1898	0	0
1899	22	0
1900	15	1
1901	387	71
1902	901	187
1903	25	3
1904	1	0
1905	1	0
1906	0	0
1907	20	0
1908	2	0
Total	1,518	282

VACCINATIONS AT CITY DISPENSARY—1908.

		TO SCHOOL PHYSICIANS.
January	24	260 points
February	20	190 "
March	32	405 "
April	85	315 "
May	844	250 "
June	103	50 "
July	62
August	53
September	167	940 "
October	54	790 "
November	44	313 "
December	52	139 "
Total	1,540	3,652 points

During 1908, in addition to 1,540 vaccinated, 3,652 points were delivered to Medical Inspectors of Schools for the purpose of vaccinating school children.

VACCINATIONS.

1901	38,288
1902	26,043
1903	4,671
1904	5,555
1905	8,243
1906	3,052
1907	1,954
1908	1,540
Total	89,346

DIPHTHERIA.

During 1908 we had reported 806 cases and 66 deaths, a mortality of 8.18%, including 30 cases and 3 deaths at Soho Hospital:

DIPHTHERIA CASES AND DEATHS.

YEAR.	CASES.	DEATHS.
1895	1,321	273
1896	1,261	218
1897	969	137
1898	1,019	133
1899	1,170	124
1900	1,417	143
1901	1,154	103
1902	985	105
1903	1,150	120
1904	1,653	150
1905	1,614	110
1906	1,273	99
1907	1,039	95
1908	806	66

DIPHTHERIA (REPORTED CASES BY MONTHS, 1908).

MONTHS.	CASES.
January	97
February	59
March	76

BOARD OF HEALTH.

73

April	78
May	59
June	58
July	35
August	28
September	60
October	91
November	86
December	79
Total	806

DIPHTHERIA (ANTITOXIN USED).

YEAR.	CASES.	DEATHS.	PERCENTAGE.
1895	384	52	13
1896	905	106	11
1897	563	61	11
1898	646	68	10½
1899	798	70	8 77-100
1900	987	80	8 1-10
1901	956	58	6 6-100
1902	775	61	7
1903	953	71	7 4-10
1904	1,399	95	6 7-10
1905	1,421	82	5 77-100
1906	1,171	72	6 1-10
1907	913	64	7
1908	726	49	6 7-10

DIPHTHERIA (ANTITOXIN NOT USED).

YEAR.	CASES.	DEATHS.	PERCENTAGE.
1895	937	221	23
1896	356	112	31
1897	406	76	19
1898	373	65	17½
1899	372	54	14½
1900	430	63	14 6-10
1901	198	45	22 7-10
1902	210	44	19
1903	197	49	24 87-100

TABLE MALE AND FEMALE DEATHS, AND DEATHS
BY COLOR—1908.

1908.	Male.	Female.	Total.	White.	Colored.	Yellow.	Total.
January -----	284	237	521	499	22	-----	521
February -----	265	209	474	454	20	-----	474
March -----	291	228	519	491	28	-----	519
April -----	231	195	426	409	17	-----	426
May -----	215	200	415	396	19	-----	415
June -----	180	170	350	338	12	-----	350
July -----	256	230	486	474	12	-----	486
August -----	262	194	456	439	16	1	456
September -----	211	180	391	387	4	-----	391
October -----	205	160	365	356	9	-----	365
November -----	204	174	378	362	16	-----	378
December -----	229	197	426	414	12	-----	426
Totals -----	2,823	2,374	5,207	5,019	187	1	5,207

DEATHS BY AGES—1908.

1908.	Under 1 Year.	1-2 Years.	2-5 Years.	5-20 Years.	20-60 Years.	Over 60 Years.	Total.
January -----	91	22	19	29	224	136	521
February -----	96	23	21	26	205	103	474
March -----	82	30	21	34	227	125	519
April -----	72	20	25	25	194	90	426
May -----	65	30	19	19	188	94	415
June -----	67	13	16	23	153	78	350
July -----	167	23	16	26	173	81	486
August -----	174	33	16	26	142	65	456
September -----	115	20	11	20	146	79	391
October -----	95	17	14	19	148	72	365
November -----	71	12	14	35	152	94	378
December -----	74	23	26	23	168	112	426
Totals -----	1,169	266	218	305	2,120	1,129	5,207

[TABLE NO. II.]
STILL BIRTHS REPORTED FOR THE YEAR 1908

SEX.	FATHER.			MOTHER.			COLOR.			Total
	Male	Female	Not Stated	Native	Foreign	Not Stated	White	Colored	Not Stated	
	280	200	2	181	271	30	450	30	2	482

Decrease over 1907, 20

[TABLE No. III.]
MARRIAGES FOR THE YEAR 1908

		NATIVITY																					
		Native		Foreign		Not Stated		First Marriage		Second Marriage				Third Marriage		Fourth Marriage		Not Stated					
White	Colored	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female	Male	Female						
		3584	3575	110	119	2014	2195	1680	1499	0	0	3190	3223	404	568	18	11	1	3	79	89	3694	
Total																							

Decrease over 1907, 84

SCARLET FEVER BY WARDS, 1908.

1st Ward.....	75	10th Ward.....	70
2d ".....	60	11th ".....	90
3d ".....	200	12th ".....	68
4th ".....	48	13th ".....	66
5th ".....	47	14th ".....	162
6th ".....	76	15th ".....	131
7th ".....	115	16th ".....	124
8th ".....	88		
9th ".....	70	Total	1500

DIPHTHERIA BY WARDS, 1908.

1st Ward.....	24	10th Ward.....	33
2d ".....	17	11th ".....	47
3d ".....	97	12th ".....	70
4th ".....	14	13th ".....	76
5th ".....	30	14th ".....	102
6th ".....	52	15th ".....	71
7th ".....	29	16th ".....	81
8th ".....	24		
9th ".....	39	Total	806

TYPHOID FEVER BY WARDS, 1908.

1st Ward.....	8	10th Ward.....	9
2d ".....	11	11th ".....	23
3d ".....	16	12th ".....	4
4th ".....	9	13th ".....	7
5th ".....	14	14th ".....	18
6th ".....	17	15th ".....	7
7th ".....	9	16th ".....	13
8th ".....	9		
9th ".....	7	Total	181

CEREBRO-SPINAL MENINGITIS BY WARDS, 1908.

1st Ward.....	0	10th Ward.....	0
2d ".....	1	11th ".....	0
3d ".....	4	12th ".....	2
4th ".....	0	13th ".....	0
5th ".....	2	14th ".....	1
6th ".....	0	15th ".....	1
7th ".....	2	16th ".....	0
8th ".....	0		
9th ".....	0	Total	13

SMALLPOX BY WARDS, 1908.

1st Ward.....	0	10th Ward.....	0
2d ".....	0	11th ".....	0
3d ".....	0	12th ".....	0
4th ".....	0	13th ".....	0
5th ".....	0	14th ".....	0
6th ".....	1	15th ".....	0
7th ".....	0	16th ".....	1
8th ".....	0		
9th ".....	0	Total	2

DEATHS IN HOSPITALS AND INSTITUTIONS—1908.

Newark City Hospital	579
St. Michael's Hospital	295
St. Jame's Hospital	77
Babies' Hospital	141
St. Barnabas Hospital.....	83
German Hospital	80
Essex County Insane Asylum	77
Little Sisters of the Poor	25
Alms House	22
Hospital for Women and Children	8
Florence Crittenden Home	1
Home for Incurables	3
Homeopathic Hospital	9
Home for Aged Women	2
Eighth Avenue Day Nursery	1
Home for Crippled Children	4
House of Good Shepherd	1
Police Ambulance	3
Essex County Jail	2
Baptist Home, Roseville	2
Newark Private Hospital	1
Eye and Ear Infirmary	2
St. Mary's Orphan Asylum	4
Bethany Home for Aged	1
Beth Israel Hospital	35
St. Peter's Orphan Asylum	2
Greisenheim Kruger's Home.....	4
First Precinct Police Station	1
Total	1,476

1,476 deaths in institutions is 28.3% of deaths in 1908, and represents 4 84-100 per thousand of our total death rate. Our city death rate exclusive of Hospital mortality is 12 23-100 per thousand of population.

[illegible]

MORTUARY REPORT—1908—Continued.

DISEASES.	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Other forms Tuberculosis	0	2	1	0	1	1	1	2	1	0	2	0	11
Syphilis	0	0	3	0	0	2	2	1	1	0	0	1	10
Cancer and Malignant Tumors	0	2	2	2	1	1	3	1	0	0	1	1	14
Buccal Cavity	0	0	0	0	0	0	0	0	0	0	3	4	7
Stomach and Liver	13	9	13	9	14	6	14	5	7	11	9	3	113
Peritoneum Intestines Rectum	4	3	4	3	4	6	2	2	3	4	6	1	40
Female Genital Organs	5	1	1	0	1	3	2	3	0	0	1	1	20
Breast	1	0	0	0	0	0	0	0	0	0	0	0	1
Skin	1	0	2	2	3	1	2	0	5	0	1	2	19
Organ not specified	3	2	1	0	1	2	0	4	1	2	4	2	22
Other Tumors	0	1	0	1	0	0	1	0	1	0	0	0	4
Acute Articular Rheumatism	1	0	2	0	2	1	1	4	1	0	0	0	15
Chronic Rheumatism and Gout	3	1	5	4	2	1	4	2	2	1	0	0	39
Diabetes	1	1	0	0	2	4	4	2	2	1	6	5	1
Scurvy	1	0	0	0	0	0	0	0	0	0	0	0	1
Exophthalmic Goitre	0	0	1	0	0	0	0	0	0	0	0	0	1
Lukaemia	1	1	1	0	1	0	0	0	0	0	1	1	5
Anemia—Chlorosis	0	0	0	2	2	2	0	0	0	0	1	3	12
Acute and Chronic Alcolohism	4	8	8	4	5	6	3	1	0	3	5	5	58
Other General Diseases	0	1	0	0	0	1	1	0	0	0	0	0	3

BOARD OF HEALTH.

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DISEASES.	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
II. Diseases Nervous System and Organs Special Sense.													
Eucephalitis	0	0	0	0	0	1	0	0	0	0	0	0	1
Simple Meningitis	9	8	14	4	1	4	4	5	7	9	4	7	76
Epidemic Meningitis	0	3	0	1	3	2	0	0	0	1	0	0	11
Locomotor Ataxia	1	1	3	1	1	2	0	0	0	0	0	0	9
Other diseases spinal cord	0	0	0	0	0	0	0	0	0	0	0	0	0
Congestion and Hemorrhage													
Brain	20	21	32	21	16	24	19	18	19	16	20	27	202
Softening Brain	0	0	1	2	0	0	0	0	0	0	0	0	3
Paralysis, without specified cause	1	3	1	3	1	0	0	0	4	3	0	4	20
General Paralysis	0	0	5	1	0	0	0	0	0	0	2	0	8
Other forms Mental Alienation	2	5	5	0	1	2	0	0	4	4	0	1	24
Epilepsy	0	0	1	1	0	0	0	2	2	0	0	0	6
Convulsions (over 5 years)	1	0	0	0	1	0	0	0	1	0	0	0	3
Convulsions (under 5 years)	5	11	6	7	5	3	7	9	7	7	5	3	75
Tetanus	0	1	0	0	0	0	1	1	1	0	0	1	5
Chorea	2	0	0	0	1	0	1	0	0	0	0	0	4
Other Diseases of Nervous System	0	1	3	0	4	0	1	4	1	1	1	0	16
III. Diseases Circulatory System.													
Pericarditis	0	1	1	1	0	2	0	1	0	0	1	1	8

MORTUARY REPORT—1908—Continued.

DISEASES.	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Acute Endocarditis -----	1	5	6	1	4	0	2	0	4	1	0	0	24
Organic Diseases Heart -----	55	52	42	43	48	32	28	33	37	29	35	31	465
Angina Pectoris -----	3	1	3	2	2	0	0	0	0	1	2	2	16
Diseases Arteries—Aneurism -----	2	2	4	4	2	1	1	2	2	2	1	4	27
Embolism and Thrombosis -----	1	1	3	3	3	0	2	2	1	2	1	0	19
Diseases of Veins -----	0	0	0	0	1	0	0	0	0	0	0	0	1
Diseases Lymphatic System -----	0	0	0	0	0	0	0	0	0	0	0	0	0
Hemorrhages -----	0	1	5	1	1	0	0	0	2	5	0	0	15
Other Diseases of Circulatory System -----	0	4	6	0	0	0	0	0	0	3	1	0	14
IV. Diseases of the Respiratory System.													
Acute Bronchitis -----	5	4	4	3	2	1	0	1	1	6	5	8	40
Chronic Bronchitis -----	6	5	5	4	5	1	1	2	1	3	2	5	40
Broncho-Pneumonia -----	22	24	29	22	14	4	9	10	15	15	15	24	203
Pneumonia -----	59	39	38	34	42	14	10	13	15	20	26	43	353
Pleurisy -----	2	2	2	4	0	1	0	0	0	0	2	0	13
Asthma -----	0	0	0	0	0	1	1	1	1	0	1	3	8
Pulmonary Emphysema -----	1	0	0	0	0	0	0	0	0	0	0	0	1
Other Diseases Respiratory System -----	1	5	2	0	0	1	2	3	1	1	3	0	19
Congestion and Apoplexy of Lungs -----	1	1	0	0	4	0	0	0	0	0	0	0	6

V. Diseases of Digestive System.

Diseases of Mouth.

Diseases of Oesophagus.

Ulcer Stomach.

Other Diseases of Stomach.

Diarrhoea and Enteritis (under 2 years).

Diarrhoea and Enteritis (over 2 years).

Hernia and Intestinal Obstruction.

Cirrhotis of Liver.

Biliary Calculi.

Other Diseases of Liver.

Simple Peritonitis.

Appendicitis.

Other Diseases of Digestive System.

VI. Diseases Genito-Urinary System.

Acute Nephritis.

Bright's Disease.

Other Diseases of Kidneys.

Diseases Urethra.

DISEASES.

	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
IX. Diseases Organs Locomotion.													
Non-Tuberculosis Diseases of Bones	0	0	1	1	0	1	0	0	0	2	0	0	5
Rickets	0	0	0	0	0	0	0	0	0	0	0	0	0
Arthritides and other Diseases of Joints	0	1	0	0	0	0	0	0	0	0	0	0	1
Amputation	0	0	0	1	0	0	0	0	0	0	0	0	1
Other Diseases Organs Locomotion	0	0	0	1	0	0	0	1	0	0	0	0	2
X. Malformations.													
Congenital Malformation	1	2	0	5	4	3	5	2	4	2	1	2	31
XI. Early Infancy.													
Congenital Debility—Jeteries.	29	29	27	26	20	27	38	44	34	36	30	28	368
Other diseases peculiar to early infancy	1	1	4	1	0	0	2	1	1	6	2	3	22
Lack of care	1	0	0	0	0	1	1	1	0	1	0	0	5
XII. Old Age.													
Senile Debility	11	8	5	5	6	7	7	5	8	4	9	12	87
XIII. External Causes.													
Suicide—Poison	2	4	4	2	2	3	2	2	1	0	1	0	23
Asphyxia	3	2	1	3	1	0	3	4	3	0	2	4	26

MORTUARY REPORT—1908—Continued.

DISEASES.	Jan.	Feb.	Mch.	Apr.	May	June	July	Aug.	Sept.	Oct.	Nov.	Dec.	Total
Hanging -----	0	0	1	2	0	1	0	0	0	0	0	0	4
Drowning -----	0	0	1	0	0	1	0	1	1	0	0	0	4
Fire-arms -----	0	1	2	1	1	1	0	2	1	2	0	1	12
Cutting instruments -----	3	0	1	0	0	1	0	0	0	1	0	0	6
Other suicides -----	0	0	0	0	0	0	0	0	0	0	0	0	0
Homicide -----	1	0	1	0	0	1	0	1	0	0	1	0	5
Fractures -----	4	2	2	0	2	1	5	8	5	4	8	5	46
Dislocations -----	0	0	0	0	0	0	0	0	0	1	0	0	1
Burns and Scalds -----	2	2	2	2	2	3	2	2	0	5	4	4	30
Burns from corrosive substances -----	0	0	0	0	0	0	0	0	0	0	1	0	1
Sunstroke -----	0	0	0	0	0	4	8	6	0	0	0	0	18
Accidental Drowning -----	4	0	2	0	0	1	6	4	1	1	3	0	22
Inanition (Starvation) -----	0	0	0	0	0	0	0	0	0	0	0	0	0
Absorption of gases -----	2	5	1	3	0	1	1	2	2	0	4	3	24
Other acute poisons -----	2	1	0	3	0	1	0	0	2	1	0	1	11
Other accidental traumatism -----	1	3	1	1	4	8	5	10	0	6	4	3	46
Other external violence -----	4	4	1	0	0	0	2	1	1	0	1	0	14
XIV. Ill-defined Causes.													
Dropsy -----	0	0	0	0	0	0	0	0	0	0	0	0	0
Sudden death -----	0	0	0	0	0	0	0	0	0	0	0	0	0
Causes of death unspecified or ill-defined -----	8	2	1	0	0	0	1	0	0	0	0	0	12
Totals -----	521	474	519	426	415	350	486	456	391	365	378	425	5,207

Respectfully Submitted

W. H. M. D.

REPORT OF TUBERCULOSIS SANITARIUM

To D. D. Chandler, Health Officer, Newark, N. J.

DEAR SIR:—I have the honor to submit report for Newark Tuberculosis Sanitarium at Verona for year ending December 31, 1908.

On January 21, 1908, the Newark Tuberculosis Sanitarium at Verona, formerly Girls' Home, was opened for patients. Two patients were admitted and since then we have treated 129 patients, of whom 54 stayed one month or longer. In making up my classifications I am not taking into consideration those patients who did not stay one month or longer.

The institution was opened for the reception of incipient and moderate advanced cases, but the majority of the cases we have had have been either moderately or far advanced cases.

The institution has been run on the open air plan but we have not been able to get the proper facilities for treating on that plan. I consider the ideal method for sleeping out is the shack.

The building we are at present utilizing is a large brick building 100 feet long by 60 feet wide with three entrances.

The first floor includes the offices, kitchen, laundry, engine-room, store-room and work-room. Extending up from this floor are two large stairways on either side of the building.

The second floor includes the doctors' and matrons' apartments. Two large sitting rooms, one for men and the other for women, and the nurses' and patients' dining-room.

The third floor includes one large ward for women, having 8 beds and 7 small rooms, also used for women. There are 5 private rooms for patients who are able to pay five (\$5) dollars per week.

The helps' and nurses' quarters are situated on this floor and there are two large bath-rooms and toilets for patients. This floor is utilized mainly for women.

The fourth floor has five wards, one having 23 beds, two having 5 beds each and two having 4 beds each. There are two small rooms with one bed each. There are two toilets and bath-rooms for patients. This floor is utilized entirely for men.

The Sanitarium is situated on the top of the second range of the Orange Mountains and is 780 feet above sea level.

When the building was turned over to the Board of Health the entire building was in bad condition. The walls were either down or badly cracked and the floors were in very bad shape. The entire building had to be put in condition and was ready for occupancy by January 21, 1908.

The improvements installed were: Kitchen range, laundry dryer, new hot water boiler, new floors wherever needed, the entire building repainted, a pavillion and a porch extending over entire side of the building.

The water supply is obtained from the City Home. This is entirely inadequate and should be remedied as soon as possible.

For the amusement of the patients we have a shuffle-board, phonograph and all games are allowable that do not strain the patients too much.

The Sanitarium is at present in need of shacks for the proper care of patients, an open air dining hall, a barn with horse and conveyance, a new water supply and one more pavillion.

The grounds surrounding the Sanitarium could be put in condition with a small outlay of money.

A crematory or garbage disposal plant is an absolute necessity.

In making up my results I am following the nomenclature of the National Association for Cure and Prevention of Tuberculosis, as follows:

1. *Incipient*.—Slight or initial lesion in the form of infiltration limited to the apices or small part of one lobe. No tuberculosis complications. Slight or no constitutional symptoms (particularly including gastric or intestinal disturbances or rapid loss of weight). Slight or no elevation of temperature and acceleration of pulse at any time in twenty-four hours, especially after rest. Expectoration usually small in amount. Tubercle bacilli may be present or absent.

2. *Moderately Advanced*.—No marked impairment of function either local or constitutional. Localized consolidation moderate in extent with little or no evidence of destruction of tissue or disseminated fibroid deposits. No serious complications.

3. *Far Advanced*.—Marked impairment of functions, local and constitutional. Localized consolidation intense; disseminated areas of softening or serious complications.

4. *Acute Miliary Tuberculosis*.

The following terms are used in classifying results:

1. *Apparently Cured*.—All constitutional symptoms and expectoration with bacilli absent for at least three months. The physical signs those of healed lesion.

2. *Arrested*.—Absence of all constitutional symptoms. Expectoration and bacilli may or may not be present. Physical signs stationary or retrogressive. The foregoing existing two months.

3. *Improved*.—Constitutional symptoms lessened or entirely absent. Physical signs improved or unchanged. Cough and expectoration with bacilli usually present.

4. *Unimproved*.—All essential symptoms and signs unabated and increased.

RESULTS.

	NUMBER.	PER CENT.
Cases apparently cured	6	11.1
Cases arrested	22	40.7
Cases Improved	19	36.5
Cases Unimproved	6	11.1
Deaths	1	1.8
Total	54	

CLASSIFICATION OF CASES.

Number incipient cases	5
Number moderately advanced cases.....	18
Number advanced cases	31
Total	54

INCIPIENT (5).

	NUMBER.	PER CENT.
Cured	4	80.0
Arrested	0	0.0
Improved	1	20.0
Unimproved	0	0.0

MODERATELY ADVANCED (18).

	NUMBER.	PER CENT.
Cured	2	11.1
Arrested	9	50.0
Improved	6	33.3
Unimproved	1	5.5

ADVANCED CASES (31).

	NUMBER.	PER CENT.
Cured	0	0.0
Arrested	12	38.7
Improved	13	41.6
Unimproved	5	16.1
Dead	1	3.2

	MALE.	FEMALE.	TOTAL.
Number admitted during year.....	87	42	129
Number treated during year.....	87	42	129
Number discharged during year.....	46	26	72
Number in sanitarium Jan. 1, 1909.....	41	16	57
Of patients discharged:			
Number who gained weight.....			45
Number who lost weight.....			9
Average gain per patient.....			13.9 lbs.
Average loss per patient.....			5.2 lbs.

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AGES.	MALE.	FEMALE.
Under 15 years	0	0
From 15 to 30 years	23	16
From 30 to 40 years	15	10
Over 40 years	8	0

SOCIAL CONDITION.

Single	30
Married	39
Widowed	3

OCCUPATIONS.

	MALE.	FEMALE.
Carpenter	4	0
Horseshoer	1	0
Bartender	3	0
Treasurer	1	0
Teacher	0	1
Leather Worker	2	0
Saleslady	0	2
Driver	2	0
Bookkeeper	2	0
Iron Molder	1	0
Shop Girl	0	1
Shoemaker	1	0
Barber	1	0
Housewife	0	16
Polisher	2	0
Janitor	1	0
Clerk	2	1
Schoolgirl	1	0
Peddler	1	0
Fireman	1	0
Salver	1	0
Dye Cutter	1	0
Shipping Clerk	1	0
Hatter	3	0
Toolmaker	1	0
Engineer	1	0
Salesman	1	0
Housework	0	2

Case	Admitted	Discharged	Length of Stay	Condition on Admission	Complications.	Condition at Discharge	Pulse	Temperature
7	Apr. 5, 1908	Nov. 18, 1908	7½ mos.	Adv. Tub.	Non-Tubercular O	Arrested	on adm. 110 to 120	on adm. 100
					Tubercular O		at disch'g 80 to 90	at disch'g 98 ³
8	Apr. 5, 1908	Oct. 27, 1908	6¾ mos.	Adv. Tub.	Non-Tubercular O	Arrested	on adm. 85 to 95	on adm. 99
					Tubercular O		at disch'g 80 to 85	at disch'g 98 ³
9	Apr. 6, 1908	Oct. 10, 1908	6 mos.	Adv. Tub.	Non-Tubercular O	Arrested	on adm. 100 to 120	on adm. 100
					Tubercular O		at disch'g 80 to 90	at disch'g 98 ³
11	Apr. 21, 1908	Nov. 15, 1908	6¾ mos.	Adv. Tub.	Non-Tubercular O	Arrested	on adm. 95 to 105	on adm. 99
					Tubercular O		at disch'g 80 to 90	at disch'g 98 ³
12	Apr. 23, 1908	July 9, 1908	2½ mos.	Adv. Tub.	Non-Tubercular Syphilis	Improved	on adm. 95 to 105	on adm. 100
					Tubercular O		at disch'g 70 to 80	at disch'g 98 ³
13	Apr. 24, 1908	Nov. 8, 1908	6½ mos.	Mod. Adv. Tub.	Non-Tubercular O	Arrested	on adm. 95 to 105	on adm. 99
					Tubercular Otitis media		at disch'g 80 to 90	at disch'g 98 ³

15	Apr. 29, 1908	July 3, 1908	2 1/4 mos.	Adv. Tub.	Tubercular Otitis media	Improved	on adm. 100 to 120 at disch'g 90 to 100	on adm. 101 at disch'g 99
16	Apr. 29, 1908	Nov. 17, 1908	6 1/2 mos.	Mod. Adv. Tub.	Non-Tubercular O	Arrested	on adm. 70 to 80 at disch'g 70 to 75	on adm. 99 at disch'g 98 ³
17	Apr. 30, 1908	Oct. 30, 1908	6 mos.	Adv. Tub.	Non-Tubercular Systolic murmur Tubercular O	Arrested	on adm. 100 to 120 at disch'g 100 to 110	on adm. 99 at disch'g 99
20	Apr. 30, 1908	Nov. 24, 1908	7 mos.	Incipient Tub.	Non-Tubercular Insomnia Tubercular O	Apparently cured	on adm. 70 to 75 at disch'g 70 to 75	on adm. 98 ⁴ at disch'g 98 ³
21	May 4, 1908	Sept. 7, 1908	4 mos.	Adv. Tub.	Non-Tubercular O Tubercular O	Arrested	on adm. 95 to 105 at disch'g 80 to 90	on adm. 99 to 100 at disch'g 99
22	May 5, 1908	June 29, 1908	1 1/2 mos.	Adv. Tub.	Non-Tubercular O Tubercular O	Improved	on adm. 120 to 130 at disch'g 120 to 130	on adm. 102 at disch'g 101
23	May 5, 1908	June 26, 1908	1 1/2 mos.	Adv. Tub.	Non-Tubercular O Tubercular Otitis media	Improved	on adm. 95 to 105 at disch'g 85 to 95	on adm. 100 at disch'g 99

Case	Admitted	Discharged	Length of Stay	Condition on Admission	Complications.	Condition at Discharge	Pulse	Temperature
24	May 7, 1908	Nov. 24, 1908	6½ mos.	Mod. Adv. Tub.	Non-Tubercular O	Arrested.	on adm. 90 to 100 at disch'g 70 to 80	on adm. 99 at disch'g 98
25	May 8, 1908	July 13, 1908	2 mos.	Adv. Tub.	Non-Tubercular Tubercular Fistula in ano	Improved	on adm. 105 to 115 at disch'g 90 to 100	on adm. 100 at disch'g 99
26	May 8, 1908	Nov. 21, 1908	6½ mos.	Mod. Adv. Tub.	Non-Tubercular Cardiac murmur Tubercular O	Apparently cured	on adm. 100 to 110 at disch'g 70 to 80	on adm. 99 at disch'g 98
27	May 10, 1908	July 8, 1908	2 mos.	Adv. Tub.	Non-Tubercular O Tubercular meningitis	Unimproved	on adm. 105 to 120 at disch'g 45 to 50	on adm. 100 at disch'g 103
29	May 12, 1908	July 8, 1908	2 mos.	Incipient Tub.	Non-Tubercular O Tubercular O	Improved	on adm. 90 to 100 at disch'g 75 to 85	on adm. 98 at disch'g 98
30	May 14, 1908	Oct. 30, 1908	5½ mos.	Mod. Adv. Tub.	Non-Tubercular O Tubercular O	Apparently cured	on adm. 100 to 110 at disch'g 80 to 90	on adm. 99 at disch'g 99

31	May 14, 1908	July 14, 1908	2 mos.	Adv. Tub.	Non-Tubercular O Tubercular Pharyngeal Tuberc.	Unimproved	on adm. 110 to 120 at disch'g 120 to 140	on adm. 101 at disch'g 102
32	May 16, 1908	June 28, 1908	6½ mos.	Mod. Adv. Tub.	Non-Tubercular O Tubercular	Improved	on adm. 100 to 110 at disch'g 90 to 100	on adm. 99 at disch'g 99
33	May 19, 1908	Aug. 17, 1908	3 mos.	Mod. Adv. Tub.	Non-Tubercular O Tubercular	Arrested	on adm. 70 to 80 at disch'g 70 to 80	on adm. 90 at disch'g 98a
34	May 19, 1908	Aug. 12, 1908	3 mos.	Mod. Adv. Tub.	Non-Tubercular O Tubercular	Arrested	on adm. 100 to 110 at disch'g 80 to 90	on adm. 101 at disch'g 99
35	May 21, 1908	Aug. 2, 1908	2½ mos.	Adv. Tub.	Non-Tubercular O Tubercular Laryngeal Tuberc.	Improved	on adm. 110 to 130 at disch'g 110 to 130	on adm. 100 at disch'g 101
36	May 21, 1908	Nov. 23, 1908	6 mos.	Mod. Adv. Tub.	Non-Tubercular O Tubercular	Arrested	on adm. 110 to 120 at disch'g 70 to 80	on adm. 100 at disch'g 98b
38	May 22, 1908	Nov. 28, 1908	6 mos.	Mod. Adv. Tub.	Non-Tubercular Nephritis Tubercular O	Arrested	on adm. 90 to 120 at disch'g 70 to 80	on adm. 100 at disch'g 98c

Case	Admitted	Discharged	Length of Stay	Condition on Admission	Complications.	Condition at Discharge	Pulse	Temperature
70	July 21, 1908	Nov. 24, 1908	4 mos.	Adv. Tub.	Non-Tubercular O	Improved	on adm. 120 to 130	on adm. 101
					Tubercular O		at disch'g 90 to 100	at disch'g 99 ²
72	July 24, 1908	Nov. 23, 1908	4 mos.	Adv. Tub.	Non-Tubercular O	Improved	on adm. 120 to 140	on adm. 108
					Tubercular Otitis media		at disch'g 100 to 110	at disch'g 99 ²
77	Aug. 4, 1908	Nov. 7, 1908	3 mos.	Adv. Tub.	Non-Tubercular O	Improved	on adm. 110 to 120	on adm. 101
					Tubercular Laryngeal Tuberc.		at disch'g 110 to 120	at disch'g 100
78	Aug. 7, 1908	Nov. 26, 1908	3½ mos.	Adv. Tub.	Non-Tubercular O	Improved	on adm. 120 to 130	on adm. 99
					Tubercular O		at disch'g 120 to 130	at disch'g 99 ²
81	Aug. 18, 1908	Nov. 21, 1908	3¼ mos.	Mod. Adv. Tub.	Non-Tubercular O	Arrested	on adm. 80 to 90	on adm. 100
					Tubercular O		at disch'g 70 to 80	at disch'g 98 ³
91	Sept. 26, 1908	Dec. 9, 1908	2½ mos.	Adv. Tub.	Non-Tubercular O	Improved	on adm. 110 to 130	on adm. 100
					Tubercular O		at disch'g 80 to 90	at disch'g 100

93	Oct. 19, 1908	Nov. 26, 1908	1 1/4 mos.	Adv. Tub.	Non-Tubercular O	Unimproved	on adm. 128 to 140	on adm. 161
					Tubercular O		at disch'g 120 to 140	at disch'g 101
104	Nov. 10, 1908	Dec. 29, 1908	1 1/2 mos.	Adv. Tub.	Non-Tubercular Cardiac Dilatation	Unimproved	on adm. 120 to 130	on adm. 102
					Tubercular O		at disch'g 130 to 140	at disch'g '00
105	Nov. 10, 1908	Dec. 14, 1908	1 1/4 mos.	Mod Adv. Tub.	Non-Tubercular O	Improved	on adm. 90 to 100	on adm. 99
					Tubercular O		at disch'g 70 to 80	at disch'g 98

Medical Superintendent.

Report of the Chemist

REPORT OF THE CHEMIST

To David D. Chandler, Health Officer:

DEAR SIR:—I herewith submit my annual report for the year ending December 31, 1908.

MILK.

There was an increase in the number of milks analyzed last year of more than 25% and the number is constantly increasing.

The results of the work have been tabulated as usual and by referring to these condensed data it is found that the percentage number of milks in the highest class, e. g. over 12.50% of Total Solids, has decreased to less than 50%, and at the same time the average quality in this class has also slightly decreased, although it is still very satisfactory. For the year it was 13.09% of Total Solids and 4.09% of Fat.

The percentage of samples in the second class (those having between 12.00% and 12.50% of Solids) is about the same as heretofore and the average is also practically unchanged. It is 12.22% of Total Solids and 3.46% of Fat.

The third class of samples are those having less than 12% of Total Solids and the increase in their number follows the corresponding decrease in the number of samples of the first class. The average quality of the third class milks is 11.50% of Total Solids and 3.06% of Fat and similar to that of the past. The general average for all samples, 12.45% of Total Solids and 3.65% of Fat, is somewhat lower than usual.

These changes are apparently due to two causes: First, the increased production of medium grade milk and second, the increasing number of milks with diminished fat content. The data from many of these strongly suggest the practice of a partial removal of the cream from an originally good milk. The watering of the product as shown by the refractometer and other tests is not nearly as frequent as in former times.

STANDARDS.

On October first the new law went into effect which provides that milk, in addition to 12% of Solids, all that was formerly required, shall contain at least 3% of Fat. Notwithstanding this provision more than the usual number of samples were found to contain less than this amount.

CLASSIFIED TABLE OF MILK ANALYSES.

247 Samples having a percentage of Total Solids of 12.50 and over.
Average for Solids, 13.089. Average for Fat, 4.078.

Solids.	Fat.	Solids.	Fat.	Solids.	Fat.	Solids.	Fat.	Solids.	Fat.	Solids.	Fat.
13.04	3.80	13.72	4.40	14.01	5.45	12.97	3.95	13.25	3.50	13.76	4.00
12.99	4.30	13.78	4.55	12.51	4.55	13.34	4.20	16.08	6.60	12.60	3.50
13.20	4.00	12.80	3.60	12.68	3.55	12.62	3.20	12.80	3.60	14.03	4.80
12.66	4.00	12.67	3.50	12.81	3.55	13.60	5.20	12.98	3.55	12.88	3.80
12.54	3.70	12.51	3.80	12.94	4.60	13.01	4.50	13.04	3.20	12.86	3.70
12.82	4.00	12.64	4.10	12.64	3.45	15.47	6.80	13.16	3.90	12.89	3.90
13.03	3.90	13.70	4.40	12.86	3.80	12.88	3.80	13.12	4.05	12.58	3.50
14.28	5.20	12.76	3.30	12.52	3.40	12.87	3.80	12.63	3.10	12.51	4.00
12.54	3.50	12.83	3.85	13.95	5.40	13.04	4.10	13.00	3.60	18.70	10.00
12.76	3.30	12.73	3.70	13.28	4.25	13.50	4.80	13.81	4.80	13.28	4.10
12.65	3.70	12.65	3.30	12.92	3.60	13.73	4.70	13.33	4.30	13.06	3.80
12.94	3.40	13.18	3.50	13.15	4.40	12.90	3.40	12.79	4.30	13.16	4.10
12.94	4.20	12.67	3.50	12.83	3.60	12.90	3.80	13.37	4.20	13.05	4.05
12.56	3.60	12.90	3.60	12.74	3.40	12.53	3.60	12.56	4.00	13.07	4.00
12.62	3.80	12.58	3.55	12.74	3.40	12.69	3.85	12.74	4.00	13.14	4.20
14.51	5.00	12.83	3.60	12.80	4.10	12.50	3.50	14.02	5.50	14.02	4.60
12.66	3.50	12.71	4.25	12.84	3.60	14.18	5.05	13.04	4.10	13.93	4.15
12.92	3.70	12.81	3.80	13.04	4.25	12.91	3.55	12.83	4.00	12.65	3.80
13.83	4.40	13.02	4.10	14.22	5.40	13.14	3.90	13.00	3.90	12.51	3.80
13.90	4.50	12.80	3.75	13.96	4.90	12.80	3.60	12.61	4.20	13.34	3.70
13.01	4.00	13.02	4.20	14.00	4.90	16.57	7.60	13.32	4.20	12.66	3.50
13.16	3.95	14.47	5.70	12.81	4.20	12.56	3.70	14.00	4.60	12.84	3.30
12.87	3.65	13.54	4.15	14.05	4.70	14.00	5.00	12.50	3.70	13.28	3.70
13.48	4.05	12.84	4.00	13.02	4.30	13.19	3.90	13.43	4.15	12.60	3.60

CLASSIFIED TABLE OF MILK ANALYSES—Continued.
 130 Samples having a percentage of Total Solids below 12.00.
 Average for Solids, 11.50. Average for Fat, 3.063.

Solids.	Fat.	Solids.	Fat.	Solids.	Fat.	Solids.	Fat.	Solids.	Fat.	Solids.	Fat.	Solids.	Fat.
11.46	2.90	11.03	3.25	11.14	3.30	11.91	3.20	11.29	2.60	11.72	3.30	11.72	3.30
11.77	3.95	11.73	3.20	10.55	3.00	11.82	3.05	11.62	3.00	11.55	3.05	11.55	3.05
11.92	2.70	11.77	3.20	11.30	2.80	11.53	3.20	11.16	3.10	10.92	2.95	10.92	2.95
11.84	3.30	11.61	3.20	11.54	3.40	11.42	2.40	11.80	2.80	11.82	2.95	11.82	2.95
11.78	3.00	11.68	3.40	11.85	3.30	11.21	3.30	11.54	3.40	11.49	2.95	11.49	2.95
10.79	2.50	11.51	3.00	11.95	3.40	11.44	2.90	11.72	2.60	11.46	2.95	11.46	2.95
11.85	3.40	11.17	3.70	11.28	3.00	11.34	2.70	11.75	3.60	11.81	3.00	11.81	3.00
11.53	3.40	11.86	3.50	11.73	3.60	11.92	3.80	11.76	3.00	11.69	3.00	11.69	3.00
11.83	3.50	11.97	3.60	11.58	2.95	11.60	3.70	11.38	2.60	11.70	2.80	11.70	2.80
11.78	3.25	11.61	3.40	11.64	2.70	11.53	3.20	11.66	3.00	11.61	1.60	11.61	1.60
11.63	2.98	11.97	3.60	11.57	3.10	11.83	3.10	11.56	2.60	11.22	2.80	11.22	2.80
11.75	3.00	11.02	3.25	11.48	2.90	11.52	3.60	11.86	3.00	11.36	3.21	11.36	3.21
11.84	3.10	10.61	2.70	11.93	3.40	11.80	3.00	11.64	3.15	11.14	2.60	11.14	2.60
11.40	2.60	11.96	3.40	11.96	3.20	11.61	3.05	11.88	3.40	11.57	2.90	11.57	2.90
11.55	3.30	11.75	3.20	11.62	3.40	10.13	.95	11.78	3.10	11.68	3.30	11.68	3.30
11.80	2.90	11.17	3.00	11.54	3.10	11.10	3.05	11.59	2.70	11.62	3.00	11.62	3.00
11.05	2.90	11.42	3.30	11.91	3.60	11.23	2.60	9.99	3.20	11.27	3.00	11.27	3.00
11.46	2.95	10.65	3.20	11.81	3.20	11.83	2.78	11.39	2.90	11.66	3.10	11.66	3.10
11.60	3.40	11.40	3.25	11.13	3.45	11.04	2.90	11.40	2.60	11.20	3.10	11.20	3.10
11.78	2.65	11.13	2.90	11.41	3.40	11.65	3.40	11.68	2.90	11.66	3.10	11.66	3.10
11.46	3.65	11.25	2.70	10.79	2.05	11.51	3.05	11.28	2.30	11.66	3.10	11.66	3.10
11.94	3.90	11.61	3.30	11.98	3.10	11.81	3.20			11.82	3.15	11.82	3.15

COMPARISON TABLE.

Year	1897	1898	1899	1900	1901	1902	1903	1904	1905	1906	1907	1908
Number of samples analyzed	136	178	221	283	293	330	465	352	445	442	418	531
1st class												
Percentage of samples	69.12	70.23	72.40	65.37	63.82	58.18	62.80	54.55	49.90	51.81	52.63	46.52
Average % of total solids	13.24	13.24	13.06	13.24	13.10	13.18	12.97	13.07	13.14	13.14	13.21	13.09
Average % of fat	---	---	3.95	4.06	4.01	4.16	3.88	4.05	4.10	4.06	4.22	4.08
2d class												
Percentage of samples	21.32	14.15	15.38	21.55	22.87	27.88	21.29	27.56	29.66	25.34	29.67	29.00
Average % of total solids	12.23	12.35	12.27	12.25	12.25	12.25	12.25	12.26	12.22	12.24	12.25	12.22
Average % of fat	---	---	3.60	3.56	3.52	3.55	3.50	3.60	3.49	3.45	3.56	3.46
3d class												
Percentage of samples	19.56	15.73	12.22	13.07	13.31	13.94	15.91	17.89	20.44	22.85	17.70	24.48
Average % of total solids	11.61	11.58	11.48	11.56	11.82	11.44	11.51	11.25	11.38	11.47	11.57	11.50
Average % of fat	---	---	3.11	3.25	3.08	3.13	3.18	3.10	3.04	3.20	3.14	3.06
General												
General average % of total solids	12.87	12.82	12.75	12.77	12.70	12.64	12.60	12.52	12.51	12.53	12.63	12.45
General average % of fat	---	---	3.80	3.85	3.75	3.81	3.68	3.75	3.61	3.71	3.83	3.65

CITY WATER.

Monthly samples of city water have been taken and analyzed from Oak Ridge stream above Clinton stream, from Clinton stream above Oak Ridge stream, Kanouse Brook, Macopin Intake, Cedar Grove Intake, Cedar Grove Outlet, Belleville Reservoir and the Laboratory Faucet. These analyses have all been tabulated and the samples from each point grouped together. Another table has been constructed from the averages of each group which will be useful for reference and comparison.

When the averages are compared with those of last year it is found that there has been a slight but general improvement in the quality. This is particularly noticeable in the Turbidity, Hardness and Total Solids. Although the Turbidity has been low ever since the new storage Reservoir at Cedar Grove was used, any improvement of the water in this respect is very desirable as the public very largely bases its judgment of quality on the clearness of a water.

As last year the improvement continues to increase all along the line to the laboratory sample, where the maximum is reached.

MICROSCOPIC ORGANISMS.

About the middle of November a very marked oily and fishy taste appeared in the water. This was investigated and a detailed report made at the time, the whole trouble being due to growths of several kinds of micro-organisms. Two species of Protozoa, *Synura* and *Dinobryon*, and the Diatom, *Asterionella* were the principal offenders but they were not equally distributed. In Clinton reservoir *Synura* and *Asterionella* were the main causes while in Cedar Grove reservoir *Dinobryon* and *Asterionella* caused the trouble. The difficulty was finally abated by treating the water with Copper Sulphate in very small amount.

There was a common fear as to danger to health from these organisms and later to the use of the Copper. So far as known no trouble has resulted from either cause, although there have been a number of similar cases.

This is a condition which is liable to develop again and frequent microscopic examination and a proper use of the Copper, when necessary, are the best ways of preventing it.

